

=> fil reg

FILE 'REGISTRY' ENTERED AT 16:23:56 ON 31 JUL 2006  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2006 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file  
provided by InfoChem.

STRUCTURE FILE UPDATES: 30 JUL 2006 HIGHEST RN 897385-07-8  
DICTIONARY FILE UPDATES: 30 JUL 2006 HIGHEST RN 897385-07-8

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

Please note that search-term pricing does apply when  
conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and  
predicted properties as well as tags indicating availability of  
experimental property data in the original document. For information  
on property searching in REGISTRY, refer to:

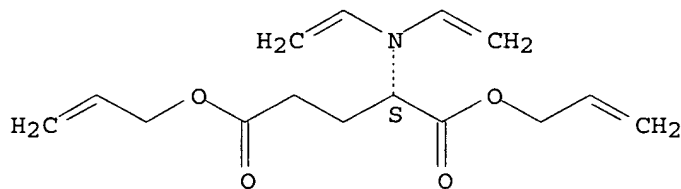
<http://www.cas.org/ONLINE/UG/regprops.html>

=> => d ide l12 1-4; d ide l60 1-3

L12 ANSWER 1 OF 4 REGISTRY COPYRIGHT 2006 ACS on STN  
RN 228718-10-3 REGISTRY  
ED Entered STN: 23 Jul 1999  
CN L-Glutamic acid, N,N-diethenyl-, di-2-propenyl ester (9CI) (CA INDEX  
NAME)  
FS STEREOSEARCH  
MF C15 H21 N O4  
SR CA  
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

*Compounds from  
Table I & II*

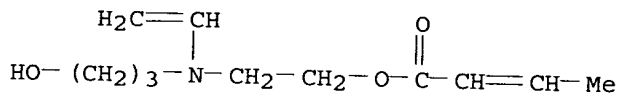


\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L12 ANSWER 2 OF 4 REGISTRY COPYRIGHT 2006 ACS on STN  
RN 228718-08-9 REGISTRY  
ED Entered STN: 23 Jul 1999  
CN 2-Butenoic acid, 2-[ethenyl(3-hydroxypropyl)amino]ethyl ester (9CI) (CA  
INDEX NAME)

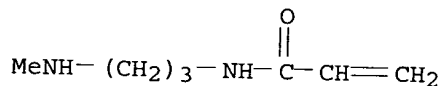
FS 3D CONCORD  
 MF C11 H19 N O3  
 SR CA  
 LC STN Files: CA, CAPLUS, TOXCENTER



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

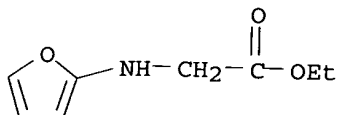
L12 ANSWER 3 OF 4 REGISTRY COPYRIGHT 2006 ACS on STN  
 RN 111774-36-8 REGISTRY  
 ED Entered STN: 12 Dec 1987  
 CN 2-Propenamide, N-[3-(methylamino)propyl]- (9CI) (CA INDEX NAME)  
 FS 3D CONCORD  
 MF C7 H14 N2 O  
 CI COM  
 SR CA  
 LC STN Files: CA, CAPLUS, TOXCENTER



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

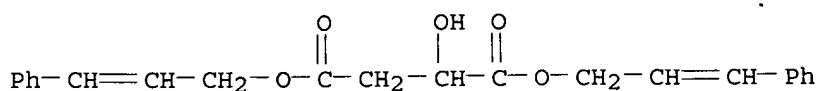
L12 ANSWER 4 OF 4 REGISTRY COPYRIGHT 2006 ACS on STN  
 RN 65654-32-2 REGISTRY  
 ED Entered STN: 16 Nov 1984  
 CN Glycine, N-2-furanyl-, ethyl ester (9CI) (CA INDEX NAME)  
 OTHER NAMES:  
 CN N-2-Furylglycine ethyl ester  
 FS 3D CONCORD  
 MF C8 H11 N O3  
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

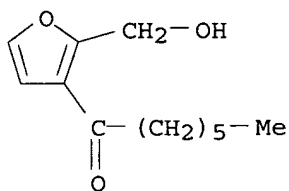
L60 ANSWER 1 OF 3 REGISTRY COPYRIGHT 2006 ACS on STN  
RN 777078-66-7 REGISTRY  
ED Entered STN: 09 Nov 2004  
CN Butanedioic acid, hydroxy-, bis(3-phenyl-2-propenyl) ester (9CI) (CA INDEX NAME)  
FS 3D CONCORD  
MF C22 H22 O5  
SR CA  
LC STN Files: CA, CAPLUS, USPATFULL



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L60 ANSWER 2 OF 3 REGISTRY COPYRIGHT 2006 ACS on STN  
RN 228718-11-4 REGISTRY  
ED Entered STN: 23 Jul 1999  
CN 1-Heptanone, 1-[2-(hydroxymethyl)-3-furanyl]- (9CI) (CA INDEX NAME)  
FS 3D CONCORD  
MF C12 H18 O3  
SR CA  
LC STN Files: CA, CAPLUS, TOXCENTER



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L60 ANSWER 3 OF 3 REGISTRY COPYRIGHT 2006 ACS on STN  
RN 81598-47-2 REGISTRY  
ED Entered STN: 16 Nov 1984  
CN 2-Propenoic acid, 3-phenyl-, monoester with 1,2,3-propanetriol (9CI) (CA INDEX NAME)  
MF C12 H14 O4  
CI IDS

LC STN Files: CA, CAPLUS, TOXCENTER

CM 1

CRN 621-82-9

CMF C9 H8 O2

Ph-CH=CH-CO<sub>2</sub>H

CM 2

CRN 56-81-5

CMF C3 H8 O3

OH  
|  
HO-CH<sub>2</sub>-CH-CH<sub>2</sub>-OH

3 REFERENCES IN FILE CA (1907 TO DATE)

3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> fil capl; s l12 or l60

FILE 'CAPLUS' ENTERED AT 16:24:34 ON 31 JUL 2006

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 31 Jul 2006 VOL 145 ISS 6  
FILE LAST UPDATED: 30 Jul 2006 (20060730/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

<http://www.cas.org/infopolicy.html>

'OBI' IS DEFAULT SEARCH FIELD FOR 'CAPLUS' FILE

2 L12

5 L60

L128

6 L12 OR L60

=> d bib ed abs hitstr 1-6

L128 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:878425 CAPLUS

DN 141:366918

TI VOC-free latex coalescent systems containing unsaturated esters, and/or ethers and low-glass transition-temperature latex resins

IN Sugerman, Gerald; Cosby, James V.

PA Vocfree, Inc., USA

SO PCT Int. Appl., 25 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004090005	A1	20041021	WO 2004-US10667	20040405
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2004228682	A1	20041021	AU 2004-228682	20040405
	CA 2521256	AA	20041021	CA 2004-2521256	20040405
	EP 1620480	A1	20060201	EP 2004-749843	20040405
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
	BR 2004009142	A	20060328	BR 2004-9142	20040405
	CN 1784434	A	20060607	CN 2004-80011433	20040405
	US 2005014877	A1	20050120	US 2004-853516	20040524
PRAI	US 2003-460096P	P	20030403		
	US 2003-473080P	P	20030523		
	WO 2004-US10667	W	20040405		

ED Entered STN: 22 Oct 2004

AB Combinations of nonvolatile, unsatd. ethers and/or esters, small proportions of latex resins with low glass transition temperature (Tg), and optionally nonvolatile reactive amines as replacements for conventionally employed volatile organic compds. (VOCs) as coalescents are used in low/no VOC-containing acrylic-styrenic copolymers, polyesters, polyurethanes and vinyl copolymers, for coatings, paints, and inks.

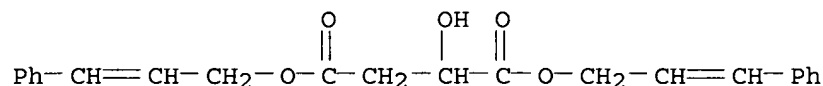
IT 777078-66-7

RL: NUU (Other use, unclassified); USES (Uses)

(coalescent; VOC-free latex coalescent systems containing unsatd. esters, and/or ethers and low-glass transition-temperature latex resins)

RN 777078-66-7 CAPLUS

CN Butanedioic acid, hydroxy-, bis(3-phenyl-2-propenyl) ester (9CI) (CA INDEX NAME)



RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L128 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1999:421733 CAPLUS

DN 131:89141

TI Preparation of acrylic-based copolymer latex coatings with low  
 environmental toxicity

IN Sugerman, Gerald

PA USA

SO PCT Int. Appl., 24 pp.

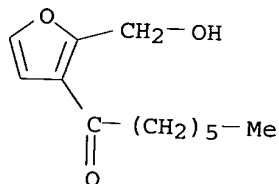
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9932563	A2	19990701	WO 1997-US24224	19971219
	WO 9932563	A3	20050506		
	W: AU, BR, CA, HU, JP, MX, NO, RU, SE, SG, TR, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	CA 2314975	AA	19990701	CA 1997-2314975	19971219
	AU 9860143	A1	19990712	AU 1998-60143	19971219
	BR 9714916	A	20001226	BR 1997-14916	19971219
	EP 1549142	A2	20050706	EP 1997-954808	19971219
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI				
PRAI	WO 1997-US24224	A	19971219		
ED	Entered STN: 08 Jul 1999				
AB	Low- or no VOC acrylic and vinyl copolymer latex, useful for coatings, paints and inks, is prepared by using nonvolatile reactive amines as neutralizers, (non)hydroxyl-containing unsatd. esters and/or ethers and/or ether-esters and saturated hydroxyl-containing etherified and/or esterified oligomeric glycols and/or oligocols as coalescents, and hypersurfactants replacing volatile amines and/or ammonia, organic solvents, and conventional soaps and/or dispersants and/or detergents, resp.				
IT	228718-11-4				
	RL: NUU (Other use, unclassified); USES (Uses) (coalescents; preparation of acrylic-based copolymer latex coatings with low environmental toxicity)				
RN	228718-11-4 CAPLUS				
CN	1-Heptanone, 1-[2-(hydroxymethyl)-3-furanyl]- (9CI) (CA INDEX NAME)				

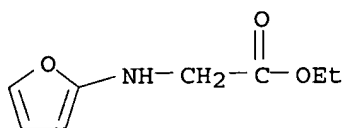


IT 65654-32-2 111774-36-8 228718-08-9  
 228718-10-3

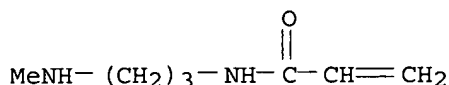
RL: MOA (Modifier or additive use); USES (Uses)  
 (neutralizer; preparation of acrylic-based copolymer latex coatings with low environmental toxicity)

RN 65654-32-2 CAPLUS

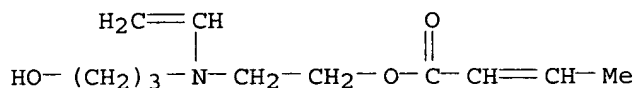
CN Glycine, N-2-furanyl-, ethyl ester (9CI) (CA INDEX NAME)



RN 111774-36-8 CAPLUS  
 CN 2-Propenamide, N-[3-(methyamino)propyl]- (9CI) (CA INDEX NAME)

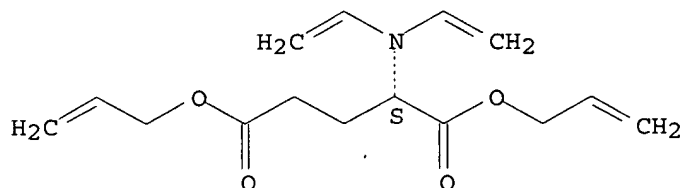


RN 228718-08-9 CAPLUS  
 CN 2-Butenoic acid, 2-[ethenyl(3-hydroxypropyl)amino]ethyl ester (9CI) (CA INDEX NAME)



RN 228718-10-3 CAPLUS  
 CN L-Glutamic acid, N,N-diethenyl-, di-2-propenyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L128 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1994:61959 CAPLUS

DN 120:61959

TI Fragrant compositions containing a single fragrant substance

IN Tanaka, Mitsuaki; Kotsuna, Kunihiro

PA Nippon Shoe, Japan

SO Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN. CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 05239491	A2	19930917	JP 1992-43461	19920228
PRAI	JP 1992-43461		19920228		
ED	Entered STN: 05 Feb 1994				
AB	A composition, that imparts fragrance steadily for a long time, is prepared by				

formulating a precursor of fragrance and an enzyme or acid which degrades the precursor and produces the fragrant component. For example, an air freshener consisted of linalool 5, linalool glucoside 10.3, polyoxyethylene nonylphenyl ether 5, EtOH 5, and water to 100 % by weight. This solution (100 g) was placed in a bottle and released into the air through a wick impregnated with 1 g  $\alpha$ -glucosidase.

IT 81598-47-2

RL: BIOL (Biological study)

(air freshener containing citric acid and)

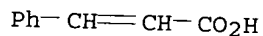
RN 81598-47-2 CAPLUS

CN 2-Propenoic acid, 3-phenyl-, monoester with 1,2,3-propanetriol (9CI) (CA INDEX NAME)

CM 1

CRN 621-82-9

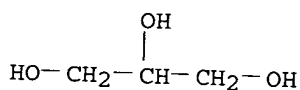
CMF C9 H8 O2



CM 2

CRN 56-81-5

CMF C3 H8 O3



L128 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1987:154821 CAPLUS

DN 106:154821

TI Manufacture of polyalcohol fatty acid esters by lipase

IN Kokusho, Sumitaka; Tsunoda, Akira; Shimizu, Norio; Iwasaki, Shinjiro

PA Meito Sangyo Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 23 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 61257191	A2	19861114	JP 1985-96632	19850509
	JP 05052191	B4	19930804		
PRAI	JP 1985-96632		19850509		

ED Entered STN: 15 May 1987

AB Polyalc. fatty acid esters are manufactured by reacting a composition containing one or

more of propylene glycol, glycerol, and polyglycerols and one or more of C2-22 (un)saturated fatty acids and their esters with C1-3 alcs. with alkaline lipase or microbial cell preparation containing the enzyme in the presence or absence of an organic solvent under dehydrated conditions ( $\leq 0.1\%$  H<sub>2</sub>O). Thus, a composition containing oleic acid 1.77, glycerol 1.77 m mole, ter-BuOH

5



mL, lipase PL 679 powder 0.1, and 3A mol. sieves 0.5 g was shaken at 37° for 48 h. The supernatant of the mixture was worked up by TLC to give 10 mg glycerol monooleate.

IT 81598-47-2P

RL: PREP (Preparation)  
(preparation of, with lipase)

RN 81598-47-2 CAPLUS

CN 2-Propenoic acid, 3-phenyl-, monoester with 1,2,3-propanetriol (9CI) (CA INDEX NAME)

CM 1

CRN 621-82-9

CMF C9 H8 O2

Ph-CH=CH-CO<sub>2</sub>H

CM 2

CRN 56-81-5

CMF C3 H8 O3

HO-CH<sub>2</sub>-CH(OH)-CH<sub>2</sub>-OH

L128 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1982:187032 CAPLUS

DN 96:187032

TI Development of inhibitive formulations for cooling water systems

AU Balakrishnan, K.; Ramakrishnaiah, K.; Raghavan, M.; Sathianandham, B.; Palaniswamy, N.

CS Cent. Electrochem. Res. Inst., Karaikudi, India

SO Met. Corros., Proc.: Int. Congr. Met. Corros./, 8th (1981), Volume 2, 1193-8 Publisher: DECHEMA, Frankfurt/Main, Fed. Rep. Ger.

CODEN: 47LJAF

DT Conference

LA English

ED Entered STN: 12 May 1984

AB Corrosion inhibition formulas, lacking or containing minimal concns. of CrO<sub>4</sub><sup>2-</sup> and NO<sub>2</sub><sup>-</sup>, were tested for use in cooling water systems with low Cl<sup>-</sup> concns. Silicate-borate mixts. containing 2-3 ppm CrO<sub>4</sub><sup>2-</sup>, amine-citrate-silicate formulas, and papaverine hydrochloride [61-25-6] were all effective for mild steel, and some organic esters, e.g., glyceryl cinnamate [81598-47-2], were effective for both mild steel and Cu.

IT 81598-47-2

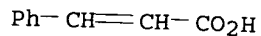
RL: OCCU (Occurrence)

(corrosion inhibitors containing, for copper and mild steel in cooling water systems)

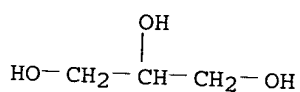
RN 81598-47-2 CAPLUS

CN 2-Propenoic acid, 3-phenyl-, monoester with 1,2,3-propanetriol (9CI) (CA INDEX NAME)

CM 1

CRN 621-82-9  
CMF C9 H8 O2

CM 2

CRN 56-81-5  
CMF C3 H8 O3

L128 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1978:89401 CAPLUS  
 DN 88:89401  
 TI Hydroxamic acid derivatives useful against urinary calculus and  
 pyelonephrosis  
 IN Tanaka, Satoru; Munakata, Keiichi  
 PA Eisai Co., Ltd., Japan  
 SO Ger. Offen., 34 pp.  
 CODEN: GWXXBX  
 DT Patent  
 LA German  
 FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2709050	A1	19771229	DE 1977-2709050	19770302
	JP 52151139	A2	19771215	JP 1976-67077	19760610
	JP 60029379	B4	19850710		
	JP 52151158	A2	19771215	JP 1976-67078	19760610
	JP 61001429	B4	19860117		
PRAI	JP 1976-67077	A	19760610		
	JP 1976-67078	A	19760610		

ED Entered STN: 12 May 1984

AB Hydroxamic acids RCONHCHR1CONHOH (R = alkoxy- or alkylenedioxy-substituted Ph, alkanamidophenyl, 2-puryl, 2-thienyl, 3-pyridyl; R1 = H or Me) and their salts, which inhibited urease, urine alkalinity, calculus formation in urine, and pyelonephritis, were prepared Thus, 2 mol KOH in MeOH was added to 1 mol HONH2.HCl in MeOH, KCl was removed by filtration, and to the remaining KONH2 was added 0.6 mol 4-MeOC6H4NHCH2CO2Et which, after standing overnight, gave 84.6% 4-MeOC6H4NHCH2CONHOH.

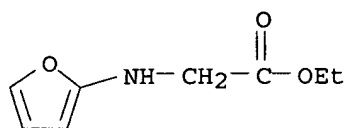
IT 65654-32-2

RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with hydroxylamine hydrochloride and alkali)

RN 65654-32-2 CAPLUS

CN Glycine, N-2-furanyl-, ethyl ester (9CI) (CA INDEX NAME)

amin2 ✓



=> fil capl; d que 13  
FILE 'CAPLUS' ENTERED AT 16:25:16 ON 31 JUL 2006  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 31 Jul 2006 VOL 145 ISS 6  
FILE LAST UPDATED: 30 Jul 2006 (20060730/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

<http://www.cas.org/infopolicy.html>  
'OBI' IS DEFAULT SEARCH FIELD FOR 'CAPLUS' FILE

L1 112 SEA FILE=CAPLUS ABB=ON SUGERMAN G?/AU  
L2 42765 SEA FILE=CAPLUS ABB=ON LATEX?/OBI  
L3 3 SEA FILE=CAPLUS ABB=ON L1 AND L2

=> fil wpix; d que 172  
FILE 'WPIX' ENTERED AT 16:25:20 ON 31 JUL 2006  
COPYRIGHT (C) 2006 THE THOMSON CORPORATION

FILE LAST UPDATED: 27 JUL 2006 <20060727/UP>  
MOST RECENT DERWENT UPDATE: 200648 <200648/DW>  
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE,  
PLEASE VISIT:  
[http://www.stn-international.de/training\\_center/patents/stn\\_guide.pdf](http://www.stn-international.de/training_center/patents/stn_guide.pdf) <

>>> FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES, SEE  
<http://scientific.thomson.com/support/patents/coverage/latestupdates/>

>>> PLEASE BE AWARE OF THE NEW IPC REFORM IN 2006, SEE  
[http://www.stn-international.de/stndatabases/details/ipc\\_reform.html](http://www.stn-international.de/stndatabases/details/ipc_reform.html) and  
<http://scientific.thomson.com/media/scpdf/ipcrdwpi.pdf> <<<

>>> FOR FURTHER DETAILS ON THE FORTHCOMING DERWENT WORLD PATENTS  
INDEX ENHANCEMENTS PLEASE VISIT:  
[http://www.stn-international.de/stndatabases/details/dwpi\\_r.html](http://www.stn-international.de/stndatabases/details/dwpi_r.html) <<<  
'BI ABEX' IS DEFAULT SEARCH FIELD FOR 'WPIX' FILE

L64 21 SEA FILE=WPIX ABB=ON SUGERMAN G?/AU  
L71 89234 SEA FILE=WPIX ABB=ON (VOC/BI,ABEX OR NONVOLATIL?/BI,ABEX OR

VOLATIL?/BI,ABEX)

L72 10 SEA FILE=WPIX ABB=ON L64 AND L71

=> => fil PASCAL, JICST-EPLUS, JAPIO, TOXCENTER, SCISEARCH  
FILE 'PASCAL' ENTERED AT 16:25:45 ON 31 JUL 2006  
Any reproduction or dissemination in part or in full,  
by means of any process and on any support whatsoever  
is prohibited without the prior written agreement of INIST-CNRS.  
COPYRIGHT (C) 2006 INIST-CNRS. All rights reserved.

FILE 'JICST-EPLUS' ENTERED AT 16:25:45 ON 31 JUL 2006  
COPYRIGHT (C) 2006 Japan Science and Technology Agency (JST)

FILE 'JAPIO' ENTERED AT 16:25:45 ON 31 JUL 2006  
COPYRIGHT (C) 2006 Japanese Patent Office (JPO)- JAPIO

FILE 'TOXCENTER' ENTERED AT 16:25:45 ON 31 JUL 2006  
COPYRIGHT (C) 2006 ACS

FILE 'SCISEARCH' ENTERED AT 16:25:45 ON 31 JUL 2006  
Copyright (c) 2006 The Thomson Corporation

=> d que l114  
L105 75 SEA SUGERMAN G?/AU  
L111 1508 SEA AMINE#(3A) (UNSAT? OR VINYL)  
L112 157985 SEA METHACRYL? OR METH ACRYL?  
L114 2 SEA L105 AND (L111 OR L112)

=> dup rem l3,l72,l114  
FILE 'CAPLUS' ENTERED AT 16:25:57 ON 31 JUL 2006  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'WPIX' ENTERED AT 16:25:57 ON 31 JUL 2006  
COPYRIGHT (C) 2006 THE THOMSON CORPORATION

FILE 'TOXCENTER' ENTERED AT 16:25:57 ON 31 JUL 2006  
COPYRIGHT (C) 2006 ACS  
PROCESSING COMPLETED FOR L3  
PROCESSING COMPLETED FOR L72  
PROCESSING COMPLETED FOR L114  
L129 12 DUP REM L3 L72 L114 (3 DUPLICATES REMOVED)  
ANSWERS '1-3' FROM FILE CAPLUS  
ANSWERS '4-11' FROM FILE WPIX  
ANSWER '12' FROM FILE TOXCENTER

=> d ibib ed abs hitind 1-3; d iall abeq tech 4-11; d iall 12

L129 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 1  
ACCESSION NUMBER: 2004:878425 CAPLUS  
DOCUMENT NUMBER: 141:366918  
TITLE: VOC-free latex coalescent systems containing  
unsaturated esters, and/or ethers and low-glass  
transition-temperature latex resins  
INVENTOR(S): Sugerman, Gerald; Cosby, James V.  
PATENT ASSIGNEE(S): Vocfree, Inc., USA  
SOURCE: PCT Int. Appl., 25 pp.

DOCUMENT TYPE: CODEN: PIXXD2  
 LANGUAGE: Patent  
 FAMILY ACC. NUM. COUNT: English  
 PATENT INFORMATION: 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004090005	A1	20041021	WO 2004-US10667	20040405
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2004228682	A1	20041021	AU 2004-228682	20040405
CA 2521256	AA	20041021	CA 2004-2521256	20040405
EP 1620480	A1	20060201	EP 2004-749843	20040405
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
BR 2004009142	A	20060328	BR 2004-9142	20040405
CN 1784434	A	20060607	CN 2004-80011433	20040405
US 2005014877	A1	20050120	US 2004-853516	20040524
PRIORITY APPLN. INFO.:			US 2003-460096P	P 20030403
			US 2003-473080P	P 20030523
			WO 2004-US10667	W 20040405

ED Entered STN: 22 Oct 2004

AB Combinations of nonvolatile, unsatd. ethers and/or esters, small proportions of latex resins with low glass transition temperature (Tg), and optionally nonvolatile reactive amines as replacements for conventionally employed volatile organic compds. (VOCs) as coalescents are used in low/no VOC-containing acrylic-styrenic copolymers, polyesters, polyurethanes and vinyl copolymers, for coatings, paints, and inks.

IC ICM C08F265-06  
ICS C08F265-04

CC 37-6 (Plastics Manufacture and Processing)  
Section cross-reference(s): 42

ST latex coalescent system VOC free coating; paint unsatd ester ether latex coalescent; ink latex coalescent VOC free

IT Chlorosulfonated polyethylene rubber  
RL: NUU (Other use, unclassified); USES (Uses)  
(Hypalon 40, coalescent; VOC-free latex coalescent systems containing unsatd. esters, and/or ethers and low-glass transition-temperature latex resins)

IT Neoprene rubber, uses  
RL: NUU (Other use, unclassified); USES (Uses)  
(Neoprene WR, coalescent; VOC-free latex coalescent systems containing unsatd. esters, and/or ethers and low-glass transition-temperature latex resins)

IT Inks  
Paints  
(VOC-free latex coalescent systems containing unsatd. esters, and/or ethers and low-glass transition-temperature latex resins)

IT Acrylic polymers, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(VOC-free **latex** coalescent systems containing unsatd. esters, and/or ethers and low-glass transition-temperature **latex** resins)

IT Coalescence  
(agents; VOC-free **latex** coalescent systems containing unsatd. esters, and/or ethers and low-glass transition-temperature **latex** resins)

IT Construction materials  
Floors  
(coatings; VOC-free **latex** coalescent systems containing unsatd. esters, and/or ethers and low-glass transition-temperature **latex** resins)

IT Coating materials  
(**latex**; VOC-free **latex** coalescent systems containing unsatd. esters, and/or ethers and low-glass transition-temperature **latex** resins)

IT Vinyl compounds, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(polymers; VOC-free **latex** coalescent systems containing unsatd. esters, and/or ethers and low-glass transition-temperature **latex** resins)

IT Esters, uses  
Ethers, uses  
RL: NUU (Other use, unclassified); USES (Uses)  
(unsatd., coalescent; VOC-free **latex** coalescent systems containing unsatd. esters, and/or ethers and low-glass transition-temperature **latex** resins)

IT 9003-20-7, Poly(vinyl acetate)  
RL: NUU (Other use, unclassified); POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(Ucar 371, Rhoplex 3077; VOC-free **latex** coalescent systems containing unsatd. esters, and/or ethers and low-glass transition-temperature **latex** resins)

IT 19727-16-3, Trimethylolpropane dimethacrylate 777081-10-4, 2,2-Bis(furoic acid) 2-propenyl ester  
RL: NUU (Other use, unclassified); USES (Uses)  
(VOC-free **latex** coalescent systems containing unsatd. esters, and/or ethers and low-glass transition-temperature **latex** resins)

IT 100-42-5D, Styrene, polymers 148264-14-6, Maincote AE 58 185323-75-5, HG 56 778596-00-2, HG 54 778596-14-8, E 2350  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(VOC-free **latex** coalescent systems containing unsatd. esters, and/or ethers and low-glass transition-temperature **latex** resins)

IT 9002-88-4  
RL: NUU (Other use, unclassified); USES (Uses)  
(chlorosulfonated polyethylene rubber, Hypalon 40, coalescent; VOC-free **latex** coalescent systems containing unsatd. esters, and/or ethers and low-glass transition-temperature **latex** resins)

IT 63971-15-3, Dipentaerythritol tetraacrylate 121546-85-8, Butvar BR 152383-40-9 777078-65-6 777078-66-7 777078-67-8 777093-75-1 777093-76-2 778595-86-1, Rhoplex 9100  
RL: NUU (Other use, unclassified); USES (Uses)  
(coalescent; VOC-free **latex** coalescent systems containing unsatd. esters, and/or ethers and low-glass transition-temperature **latex**

resins)  
 IT 9010-98-4  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (neoprene rubber, Neoprene WR, coalescent; VOC-free latex  
 coalescent systems containing unsatd. esters, and/or ethers and low-glass  
 transition-temperature latex resins)  
 REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L129 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 2  
 ACCESSION NUMBER: 1999:421733 CAPLUS  
 DOCUMENT NUMBER: 131:89141  
 TITLE: Preparation of acrylic-based copolymer latex  
 coatings with low environmental toxicity  
 INVENTOR(S): Sugerman, Gerald  
 PATENT ASSIGNEE(S): USA  
 SOURCE: PCT Int. Appl., 24 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9932563	A2	19990701	WO 1997-US24224	19971219
WO 9932563	A3	20050506		
W: AU, BR, CA, HU, JP, MX, NO, RU, SE, SG, TR, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2314975	AA	19990701	CA 1997-2314975	19971219
AU 9860143	A1	19990712	AU 1998-60143	19971219
BR 9714916	A	20001226	BR 1997-14916	19971219
EP 1549142	A2	20050706	EP 1997-954808	19971219
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI				
PRIORITY APPLN. INFO.:			WO 1997-US24224	A 19971219

ED Entered STN: 08 Jul 1999  
 AB Low- or no VOC acrylic and vinyl copolymer latex, useful for coatings,  
 paints and inks, is prepared by using nonvolatile reactive amines as  
 neutralizers, (non)hydroxyl-containing unsatd. esters and/or ethers and/or  
 ether-esters and saturated hydroxyl-containing etherified and/or esterified  
 oligomeric glycols and/or oligools as coalescents, and hypersurfactants  
 replacing volatile amines and/or ammonia, organic solvents, and conventional  
 soaps and/or dispersants and/or detergents, resp.  
 IC ICM C09D  
 CC 42-10 (Coatings, Inks, and Related Products)  
 Section cross-reference(s): 37  
 ST acrylic vinyl copolymer latex coating toxicity; nonvolatile  
 reactive amine neutralizer latex coating; hydroxyl unsatd ester  
 ether coalescent latex; satd polyether polyester polyol  
 coalescent latex; hypersurfactant latex coating  
 reducing emission  
 IT Inks  
 Latex  
 (acrylic-based copolymer latex coatings with low  
 environmental toxicity)  
 IT Coalescence  
 (agents, coalescents; acrylic-based copolymer latex coatings  
 with low environmental toxicity)  
 IT Neutralization  
 (agents; acrylic-based copolymer latex coatings with low



environmental toxicity)  
IT Coating materials  
(emulsion; acrylic-based copolymer latex coatings with low environmental toxicity)  
IT Surfactants  
(hyper; acrylic-based copolymer latex coatings with low environmental toxicity)  
IT Paints  
(latex; acrylic-based copolymer latex coatings with low environmental toxicity)  
IT Acrylic polymers, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(polymers with vinyl monomers; acrylic-based copolymer latex coatings with low environmental toxicity)  
IT 100-42-5D, Styrene, copolymer with acrylic monomers 9003-20-7, PVA 148264-14-6, Maincote AE 58 229959-65-3, Flexbond 285 229959-69-7, Flexbond 28  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(acrylic-based copolymer latex coatings with low environmental toxicity)  
IT 57-55-6, 1,2-Propanediol, uses 14697-46-2D, 1,2,5-Pentanetriol, trimer, Et ethers 19727-16-3 23778-52-1, Penta(ethylene glycol) monomethyl ether 51728-68-8 71244-11-6, PmPE 78146-71-1 152383-40-9 228718-11-4 228718-12-5 228718-13-6 228718-14-7 228718-15-8 228718-16-9 228718-17-0 228718-18-1 228857-61-2 228857-67-8  
RL: NUU (Other use, unclassified); USES (Uses)  
(coalescents; preparation of acrylic-based copolymer latex coatings with low environmental toxicity)  
IT 88-12-0, uses, 7005-47-2, DMAMP 80 16889-06-8 65654-32-2 111774-36-8 228718-06-7 228718-07-8 228718-08-9 228718-09-0 228718-10-3  
RL: MOA (Modifier or additive use); USES (Uses)  
(neutralizer; preparation of acrylic-based copolymer latex coatings with low environmental toxicity)  
IT 56-86-0D, Glutamic acid, Et derivative  
RL: MOA (Modifier or additive use); USES (Uses)  
(preparation of acrylic-based copolymer latex coatings with low environmental toxicity)  
IT 185323-75-5, Maincote HG 56 229959-58-4, AC 625  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(preparation of acrylic-based copolymer latex coatings with low environmental toxicity)  
IT 9063-51-8, Tamol 850 37199-81-8, Tamol 731  
RL: MOA (Modifier or additive use); USES (Uses)  
(surfactant; acrylic-based copolymer latex coatings with low environmental toxicity)  
IT 9016-45-9, Triton N 101 60864-33-7, Triton CF 10 63713-74-6 228718-19-2 228718-20-5 228718-21-6 228718-22-7 228718-23-8 228857-68-9  
RL: MOA (Modifier or additive use); USES (Uses)  
(surfactant; preparation of acrylic-based copolymer latex coatings with low environmental toxicity)

L129 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1977:56110 CAPLUS

DOCUMENT NUMBER: 86:56110

TITLE: Putting performance into thermosets with titanium

coupling agents  
 AUTHOR(S): Sugerman, G.; Monte, S. J.  
 CORPORATE SOURCE: Kenrich Petrochem., Inc., Bayonne, NJ, USA  
 SOURCE: High Perform. Plast., Natl. Tech. Conf. - Soc. Plast. Eng., [Prepr.] (1976), 106-13. SPE: Greenwich, Conn.  
 CODEN: 34KKAF  
 DOCUMENT TYPE: Conference  
 LANGUAGE: English  
 ED Entered STN: 12 May 1984  
 AB Organotitanium coupling agents improved dispersion, flame retardance, and hydrophobicity of filled polymers. Iso-Pr tris(dioctylphosphato)titanate [61436-47-3] decreased the viscosity of Araldite 6010 [25068-38-6] and Araldite 506 [59233-24-8] containing silica. Iso-Pr tris(dodecylbenzenesulfonyl)titanate [61417-55-8] or a similar titanate decreased the viscosity of alumina trihydrate- or CaCO<sub>3</sub>-filled polystyrene [9003-53-6] latexes. Tetrakis(octyloxy)titanium bis(dilauryl phosphite) [61433-80-5] or a similar titanate decreased the viscosity of Geon 121 (PVC) [9002-86-2] plastisols. Amino titanates increased the tensile strength, elongation, and tear strength of the vulcanizate of carbon black-filled butadiene-styrene copolymer.  
 CC 36-6 (Plastics Manufacture and Processing)  
 IT Carpets  
 (backing for, polystyrene latex for, coupling agents for)

L129 ANSWER 4 OF 12 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN DUPLICATE 3  
 ACCESSION NUMBER: 1994-166626 [20] WPIX  
 DOC. NO. CPI: C1994-076383  
 TITLE: Pollution free coating from mixed beta keto acylate monomers - employed as reactive diluents having low toxicity and moderate cost.  
 DERWENT CLASS: A14 A41 A82 G02  
 INVENTOR(S): SUGERMAN, G  
 PATENT ASSIGNEE(S): (SUGE-I) SUGERMAN G  
 COUNTRY COUNT: 1  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN	IPC
US 5314930	A	19940524	(199420)*		5	C07C069-52	

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 5314930	A	US 1993-42534	19930405

PRIORITY APPLN. INFO: US 1993-42534 19930405  
 INT. PATENT CLASSIF.:  
 MAIN: C07C069-52  
 SECONDARY: C08G002-16; C08G002-22; C08G002-26  
 BASIC ABSTRACT:

US 5314930 A UPAB: 19940705  
 A compsn. comprising beta keto mixed acylate monomers containing both 1-3 alpha-beta unsatd. carboxylate gps., and another type(s) of carboxyl-derived substit. gp. on a C atom(s) beta to the carbonyl gp., and which conforms to the compsn. of formula a,b,cCC(O)Cd,e,f (I) is new; 1-3

of a,b,d,e = monovalent ligand of formula  $-\text{CH}_2\text{O}_2\text{CCR}=\text{CR}'\text{R}''$  (II); R,R',R'' = H, methyl or ethyl ligand; and 1-3 of a,b,d,e = monovalent ligand of formula  $-\text{CH}_2\text{O}_2\text{CCnH}_2(\text{n}-\text{x})+1$  (III); n = 1-30; and x = 0-4 but less than (n/2-1), wherein both the non-acylate members of the gp. a,b,d and e, as well as c and f are chosen from H and 1-12C monovalent hydrocarbyl ligands, where opt. 2 or more of the hydrocarbyl ligands may be conjoined to form ring structures.

USE/ADVANTAGE - The low toxicity, moderate cost, beta keto mixed acylate monomers provide reactive diluents which permit elimination of both volatile organic cpds. (VOCs) and toxic heavy metal requirements, while providing excellent performance and processing properties. They have claimed use in thermoset polyester coatings, inks, radiation- and thermally- cured coatings and hot melt adhesive coatings.

Dwg.0/0

FILE SEGMENT: CPI  
FIELD AVAILABILITY: AB  
MANUAL CODES: CPI: A04-A03; A04-B09; A04-F06B; G02-A02C; G02-A04A; G03-B02D1

L129 ANSWER 5 OF 12 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN  
ACCESSION NUMBER: 2005-120798 [13] WPIX  
DOC. NO. CPI: C2005-040124  
TITLE: Coalescent system for, e.g. acrylic latex resins used in making latex coating for floor, contains combination of **nonvolatile**, unsaturated esters/ethers/ether-esters, and low glass transition temperature latex resin(s).  
DERWENT CLASS: A18 A23 A25 A82 E12 G02  
INVENTOR(S): **SUGERMAN, G**  
PATENT ASSIGNEE(S): (SUGE-I) SUGERMAN G  
COUNTRY COUNT: 1  
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN	FPC
US 2005014877	A1	20050120	(200513)*		10	C08L001-00	

#### APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2005014877	A1 Provisional	US 2003-473080P	20030523
		US 2004-853516	20040524

PRIORITY APPLN. INFO: US 2003-473080P 20030523; US  
2004-853516 20040524

INT. PATENT CLASSIF.:

MAIN: C08L001-00

#### BASIC ABSTRACT:

US2005014877 A UPAB: 20050224

NOVELTY - A coalescent system for, e.g. acrylic latex resins, comprises a combination of **nonvolatile**, unsaturated esters/ethers/ether-esters, and low glass transition temperature (Tg) latex resin(s), and optionally 0.2-2 weight% organometallic based surfactant(s), and optionally 0.1-4 weight% non-volatile reactive amine(s).

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a method for coalescing a latex resin comprising combining a latex resin with a **nonvolatile** unsaturated ester/ether/ether-ester and a low Tg latex resin.

USE - The inventive coalescent system is used for acrylic latex resins, vinyl and/or vinyl copolymer latex resins, styrenic copolymer latex resins, polyurethane latex resins, or polyester latex resins. The latex resins are used in making low **volatile** organic compound (VOC) latex coating as floor coating or architectural and/or maintenance coating, paint, or ink. (all claimed)

ADVANTAGE - The inventive coalescent system effectively reduces emissions and enhances the performance of films produced from the conventional latex resins, but especially when employed in conjunction with certain types of hypersurfactants, also often upgrades pigment/extender dispersion, and reduce grind times in particulate containing variant, thus enabling enhanced plant and energy use efficiencies.

Dwg.0/0

FILE SEGMENT: CPI

FIELD AVAILABILITY: AB; DCN

MANUAL CODES: CPI: A04-C01; A04-F01A1; A04-G01E; A08-S01; A12-B01E; A12-B01G; A12-D05B; A12-W07D; E07-A02D; E10-E02F1; E10-E04G; E10-E04H2; E10-E04J3; E10-E04J4; E10-E04K; E10-E04M3; E10-E04M4; E10-G02; G02-A02C; G02-A02D; G02-A02D4; G02-A04A

TECH UPTX: 20050224

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Method: The method further comprises combining 0.2-2 wt.% organo-metallic based surfactants. It further comprises combining 0.1-4 wt.% non-**volatile** reactive amine(s).

TECHNOLOGY FOCUS - POLYMERS - Preferred Component: The latex resin is a vinyl copolymer, styrenic copolymer, or acrylic polymer or copolymer.

L129 ANSWER 6 OF 12 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN  
 ACCESSION NUMBER: 2005-031400 [03] WPIX  
 DOC. NO. NON-CPI: N2005-027091  
 DOC. NO. CPI: C2005-009913  
 TITLE: Composition useful e.g. as an epoxy curative, comprises polymeric organic carboxylic acid containing resin and multifunctional hydroxyl bearing di/oligoamines.  
 A21 A82 A97 G02 P42  
 DERWENT CLASS: SUGERMAN, G  
 INVENTOR(S): (SUGE-I) SUGERMAN G; (VOCF-N) VOCFREE INC  
 PATENT ASSIGNEE(S):  
 COUNTRY COUNT: 109  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN	IPC															
WO 2004105963	A1	20041209	(200503)*	EN	28	B05D001-00																
RW:	AT	BE	BG	BW	CH	CY	CZ	DE	DK	EA	EE	ES	FI	FR	GB	GH	GM	GR	HU	IE	IT	KE
LS	LU	MC	MW	MZ	NA	NL	OA	PL	PT	RO	SD	SE	SI	SK	SL	SZ	TR	TZ	UG	ZM	ZW	
W:	AE	AG	AL	AM	AT	AU	AZ	BA	BB	BC	BR	BW	BY	BZ	CA	CH	CN	CO	CR	CU	CZ	DE
DK	DM	DZ	EC	EE	EG	ES	FI	GB	GD	GE	GH	GM	HR	HU	ID	IL	IN	IS	JP	KE	KG	
KP	KR	KZ	LC	LK	LR	LS	LT	LU	LV	MA	MD	MG	MK	MN	MW	MX	MZ	NA	NI	NO	NZ	
OM	PG	PH	PL	PT	RO	RU	SC	SD	SE	SG	SK	SL	SY	TJ	TM	TN	TR	TT	TZ	UA	UG	
US	UZ	VC	VN	YU	ZA	ZM	ZW															
US 2005148711	A1	20050707	(200547)			C08F004-06																
EP 1626815	A1	20060222	(200615)	EN		B05D001-00																
R:	AL	AT	BE	BG	CH	CY	CZ	DE	DK	EE	ES	FI	FR	GE	GR	HR	HU	IE	IT	LI	LT	LU
LV	MC	MK	NL	PL	PT	RO	SE	SI	SK	TR												
AU 2004243275	A1	20041209	(200637)			B05D001-00																
BR 2004010628	A	20060620	(200643)			B05D001-00																
MX 2005012654	A1	20060201	(200643)			B05D001-00																

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2004105963	A1	WO 2004-US15995	20040521
US 2005148711	A1 Provisional	US 2003-473079P	20030523
		US 2004-850627	20040521
EP 1626815	A1	EP 2004-752919	20040521
		WO 2004-US15995	20040521
AU 2004243275	A1	AU 2004-243275	20040521
BR 2004010628	A	BR 2004-10628	20040521
		WO 2004-US15995	20040521
MX 2005012654	A1	WO 2004-US15995	20040521
		MX 2005-12654	20051123

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 1626815	A1 Based on	WO 2004105963
AU 2004243275	A1 Based on	WO 2004105963
BR 2004010628	A Based on	WO 2004105963
MX 2005012654	A1 Based on	WO 2004105963

PRIORITY APPLN. INFO: US 2003-473079P 20030523; US  
2004-850627 20040521

## INT. PATENT CLASSIF.:

MAIN: B05D001-00; C08F004-06  
SECONDARY: B05D005-00; C08L033-02; C08L033-04

## BASIC ABSTRACT:

WO2004105963 A UPAB: 20050907

NOVELTY - Composition comprises at least one polymeric organic carboxylic acid containing resin(s) and at least one multifunctional hydroxyl bearing di/oligoamines.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for:

- (1) producing (P1) an epoxy curative, coating, paint and print ink involves combining the components of the composition;
- (2) printing, painting or coating a substrate involves applying print ink, paint or coating to the substrate; and
- (3) adhering a first substrate to a second substrate involves applying the epoxy curative, coating, paint or print to the first substrate and contacting the first substrate to the second substrate.

USE - As an epoxy curative; vehicle for coating, paint and print ink (claimed). In wear, water and vibration resistant, **volatile** organic compound free coatings, inks and paints.

ADVANTAGE - The composition is free of **volatile** organic compound.

Dwg. 0/0

FILE SEGMENT: CPI GMPI

FIELD AVAILABILITY: AB

MANUAL CODES: CPI: A05-A01B1; A08-D; A12-B01A; G02-A02E

TECH UPTX: 20050112

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Method: (P1) further involves adding epoxy curative additive(s). Preferred Components: The multifunctional hydroxyl bearing di/oligoamine(s) are **nonvolatile** comprising at least one primary amino ligand(s) and at least one hydroxyl group. The polymeric organic carboxylic acid group containing resin(s) further comprises at least one free carboxylic acid based monomers and non-carboxylic acid based monomers. The composition further comprises an

additional solvent (preferably water or organic solvent).

L129 ANSWER 7 OF 12 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN  
 ACCESSION NUMBER: 2004-757972 [74] WPIX  
 DOC. NO. NON-CPI: N2004-598572  
 DOC. NO. CPI: C2004-266040  
 TITLE: Coating stripper composition for removing, e.g. waxes,  
 printing inks, paints from substrates, e.g. steel  
 substrates, includes oligo alkylene glycols and/or their  
 mono alkyl ethers, and optionally neutralized,  
 nonvolatile di/oligoamines.  
 DERWENT CLASS: A25 A26 A97 D25 E19 P43  
 INVENTOR(S): COSBY, J; SUGERMAN, G; COSBY, J V  
 PATENT ASSIGNEE(S): (VOCF-N) VOCFREE INC  
 COUNTRY COUNT: 109  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN	IPC
WO 2004090085	A1	20041021	(200474)*	EN	23	C11D001-72	
RW:	AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE						
	LS LU MC MW MZ NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW						
W:	AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE						
	DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG						
	KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ						
	OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG						
	US UZ VC VN YU ZA ZM ZW						
EP 1615987	A1	20060118	(200606)	EN		C11D001-72	
R:	AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IT LI LT LU						
	LV MC MK NL PL PT RO SE SI SK TR						
AU 2004227415	A1	20041021	(200624)			C11D001-72	
BR 2004009150	A	20060328	(200624)			C11D001-72	

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2004090085	A1	WO 2004-US10666	20040405
EP 1615987	A1	EP 2004-749842	20040405
		WO 2004-US10666	20040405
AU 2004227415	A1	AU 2004-227415	20040405
BR 2004009150	A	BR 2004-9150	20040405
		WO 2004-US10666	20040405

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 1615987	A1 Based on	WO 2004090085
AU 2004227415	A1 Based on	WO 2004090085
BR 2004009150	A Based on	WO 2004090085

PRIORITY APPLN. INFO: US 2003-460060P 20030403

INT. PATENT CLASSIF.:

MAIN: C11D001-72

SECONDARY: B08B003-04; C11D003-26; C11D003-30

## BASIC ABSTRACT:

WO2004090085 A UPAB: 20041117

NOVELTY - A coating stripper composition comprises oligo alkylene glycols and/or their mono alkyl ethers, and optionally (partially) neutralized,

**nonvolatile di/oligoamines.**

DETAILED DESCRIPTION - A coating stripper composition comprises oligo alkylene glycols and/or their mono alkyl ethers, and optionally (partially) neutralized, **nonvolatile di/oligoamines**, of formulae  $R(OR')_xOA$  and  $R_1R_2NR_3((R_4)NR_5)_yH$ , respectively.

R = H, or 1-6C monovalent, saturated hydrocarbyl ligand or phenyl;

R' = divalent saturated 2-6C hydrocarbyl ligands;

A = mono valent ligand H, or 2-4C hydroxy acyl group;

x = 3-20;

R<sub>1</sub>, R<sub>2</sub>, R<sub>4</sub> = H, Me, Et, isopropyl, propyl, 2 hydroxyethyl, or 2- or 3- hydroxypropyl ligands;

R<sub>3</sub>, R<sub>5</sub> = 2-12C divalent saturated hydrocarbyl, or ether ligands;

y = 0-5.

An INDEPENDENT CLAIM is also included for a method for producing the coating stripper composition comprising combining with oligo alkylene glycols and/or their mono alkyl ethers, and or ether hydroxy esters, (optionally partially) neutralized, **nonvolatile di/oligoamines**.

USE - The invention is used for removing polymeric organic coatings, e.g. waxes, printing inks, paints from solid substrates (claimed).

ADVANTAGE - The invention provides superiority, minimizes **volatile** organic compound, flammability and corrosive pH conditions.

Dwg.0/0

FILE SEGMENT: CPI GMPI

FIELD AVAILABILITY: AB; DCN

MANUAL CODES: CPI: A12-W12; D11-B19; E10-E04M3

TECH UPTX: 20041117

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Method: The degree of neutralization has been adjusted such that dilution with 1-10 volumes water per volume of composition, produces a mixture having a pH of 6-8. The composition is produced by combining with wax stripper additives, ink stripper additives, or paint stripper additives.

Preferred Component: A neutralizing agent is a di or polybasic acid. The composition further comprises defoamers, water, and/or wetting agents.

Preferred Property: The oligo alkylene glycols and their mono alkyl ethers are **nonvolatile**.

L129 ANSWER 8 OF 12 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN

ACCESSION NUMBER: 2004-315560 [29] WPIX

DOC. NO. CPI: C2004-119591

TITLE: Coating composition for ink used in printing comprises lithographic ink or varnish, and catalytic proportions of inorganic salt(s) of peracids.

DERWENT CLASS: A23 A97 E37 G02

INVENTOR(S): **SUGERMAN, G**

PATENT ASSIGNEE(S): (VOCF-N) VOCFREE INC; (SUGE-I) SUGERMAN G

COUNTRY COUNT: 103

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN	IPC
WO 2004022655	A2	20040318	(200429)*	EN	20	C09D000-00	
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS							
LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW							
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK							
DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR							
KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT							
RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA							
ZM ZW							
AU 2003270075	A1	20040329	(200459)			C09D000-00	

US 2004211333 A1 20041028 (200471) B41F031-00  
 EP 1539891 A2 20050615 (200539) EN C09D011-00  
 R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV  
 MC MK NL PT RO SE SI SK TR  
 BR 2003014082 A 20050519 (200549) C09D011-00  
 JP 2005538223 W 20051215 (200582) 16 C09D011-02  
 MX 2005002552 A1 20060101 (200637) C09D011-00  
 CN 1738876 A 20060222 (200643) C09D011-00  
 KR 2005083676 A 20050826 (200644) C09D011-02

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2004022655	A2	WO 2003-US27573	20030903
AU 2003270075	A1	AU 2003-270075	20030903
US 2004211333	A1 Provisional	US 2002-408951P	20020905
EP 1539891	A2	US 2003-653863	20030903
BR 2003014082	A	EP 2003-751969	20030903
JP 2005538223	W	WO 2003-US27573	20030903
MX 2005002552	A1	BR 2003-14082	20030903
CN 1738876	A	WO 2003-US27573	20030903
KR 2005083676	A	JP 2004-534498	20030903
		WO 2003-US27573	20030903
		MX 2005-2552	20050304
		CN 2003-821157	20030903
		WO 2003-US27573	20030903
		KR 2005-703859	20050304

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2003270075	A1 Based on	WO 2004022655
EP 1539891	A2 Based on	WO 2004022655
BR 2003014082	A Based on	WO 2004022655
JP 2005538223	W Based on	WO 2004022655
MX 2005002552	A1 Based on	WO 2004022655
KR 2005083676	A Based on	WO 2004022655

PRIORITY APPLN. INFO: US 2002-408951P 20020905; US  
 2003-653863 20030903

## INT. PATENT CLASSIF.:

MAIN: B41F031-00; C09D000-00; C09D011-00; C09D011-02  
 SECONDARY: B41N003-08; C09D007-12

## BASIC ABSTRACT:

WO2004022655 A UPAB: 20040505  
 NOVELTY - A coating composition comprises lithographic ink or varnish, and catalytic proportions of inorganic salt(s) of peracids.  
 DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:  
 (a) a method of printing comprising using ink having the coating composition; and  
 (b) a process of making the coating composition comprising combining lithographic ink or varnish and catalytic proportions of inorganic salt of peracid.  
 USE - The invention is for ink used in printing (claimed). It is also use as inks, varnishes, and paints.  
 ADVANTAGE - The invention provides ink with reduced dot gain, faster drying, reduced/virtual elimination of low volatile organic



compounds (VOCs), and enhanced print pressure tolerance.

Dwg.0/0

FILE SEGMENT: CPI  
FIELD AVAILABILITY: AB; DCN  
MANUAL CODES: CPI: A12-W07D; E31-E; G02-A04A  
TECH UPTX: 20040505

TECHNOLOGY FOCUS - IMAGING AND COMMUNICATION - Preferred Composition: The lithographic ink or varnish comprises 10-25000 ppm inorganic salts of peracids.

Preferred Component: The coating composition further includes additional ink vehicle components from solids, alkyds, polyesters, or polyamides, and water. The ink vehicle is mixed with a fountain solution. The fountain solution comprises organic (hydro)peroxide and/or inorganic salt of peracid.

Preferred Process: The printing of ink comprises applying the ink to a press, and printing on paper. It is a lithographic printing. The printing further includes combining water.

TECHNOLOGY FOCUS - INORGANIC CHEMISTRY - Preferred Component: The inorganic salt of peracid is sodium peroxy diphosphate, sodium perborate, sodium persulfate, sodium peroxy disulfate, calcium peroxy stannate, aluminum percarbonate, potassium perhenate, potassium peroxy molybdate, magnesium peroxy tungstate, or sodium peroxy osmate.

L129 ANSWER 9 OF 12 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN

ACCESSION NUMBER: 2004-315559 [29] WPIX

DOC. NO. CPI: C2004-119590

TITLE: Coating composition for ink used in printing comprises 2,5-bis fatty acid esters of 1,4-bis oxa-2,5-cyclohexadiene-2,5-diols, and any of multifunctional (meth)acrylates and/or vinyl ethers.

DERWENT CLASS: A14 A23 A97 E19 G02

INVENTOR(S): SUGERMAN, G

PATENT ASSIGNEE(S): (SUGE-I) SUGERMAN G; (VOCF-N) VOCFREE INC

COUNTRY COUNT: 101

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN	IPC
WO 2004022654	A2	20040318	(200429)*	EN	22	C09D000-00	
RW:	AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS						
	LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW						
W:	AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK						
	DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR						
	KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT						
	RO RU SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW						
US 2004143031	A1	20040722	(200449)			C09D011-00	
AU 2003263073	A1	20040329	(200459)			C09D000-00	
EP 1539892	A2	20050615	(200539)	EN		C09D011-10	
R:	AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV						
	MC MK NL PT RO SE SI SK TR						
BR 2003014076	A	20050519	(200549)			C09D011-10	
JP 2005538222	W	20051215	(200582)		16	C08F220-10	
CN 1703472	A	20051130	(200636)			C09D011-10	
MX 2005002551	A1	20060101	(200637)			C09D011-10	
KR 2005083675	A	20050826	(200644)			C09D011-10	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
-----------	------	-------------	------

WO 2004022654	A2	WO 2003-US27572	20030903
US 2004143031	A1 Provisional	US 2002-408916P	20020905
AU 2003263073	A1	US 2003-653867	20030903
EP 1539892	A2	AU 2003-263073	20030903
BR 2003014076	A	EP 2003-794598	20030903
JP 2005538222	W	WO 2003-US27572	20030903
CN 1703472	A	BR 2003-14076	20030903
MX 2005002551	A1	WO 2003-US27572	20030903
KR 2005083675	A	WO 2003-US27572	20030903
		JP 2004-534497	20030903
		CN 2003-821152	20030903
		WO 2003-US27572	20030903
		MX 2005-2551	20050304
		WO 2003-US27572	20030903
		KR 2005-703858	20050304

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2003263073	A1 Based on	WO 2004022654
EP 1539892	A2 Based on	WO 2004022654
BR 2003014076	A Based on	WO 2004022654
JP 2005538222	W Based on	WO 2004022654
MX 2005002551	A1 Based on	WO 2004022654
KR 2005083675	A Based on	WO 2004022654

PRIORITY APPLN. INFO: US 2002-408916P 20020905; US  
2003-653867 20030903

## INT. PATENT CLASSIF.:

MAIN: C08F220-10; C09D000-00; C09D011-00; C09D011-10  
SECONDARY: C03C017-00; C08F216-12; C09D005-00

## BASIC ABSTRACT:

WO2004022654 A UPAB: 20040505

NOVELTY - A coating composition comprises 2,5-bis fatty acid esters of 1,4-bis oxa-2,5-cyclohexadiene-2,5-diols, and any of multifunctional (meth)acrylates and/or vinyl ethers. The amount of (meth)acrylate is less than 10 weight% of the total composition.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a method of printing comprising using ink having the coating composition. USE - For ink used in printing (claimed).

ADVANTAGE - The invention provides ink with reduced dot gain, faster drying, reduced/virtual elimination of low volatile organic compounds (VOCs), and enhanced print pressure tolerance.

Dwg.0/0

FILE SEGMENT: CPI

FIELD AVAILABILITY: AB; DCN

MANUAL CODES: CPI: A12-W07D; E07-A01; E07-A02E; E07-A04; E10-G02G1;  
E10-H01D; G02-A05; G05-F

TECH UPTX: 20040505

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Composition: The composition has 2-30 wt.% combination of 2,5-bis fatty acid esters of 1,4-bis oxa-2,5-cyclohexadiene-2,5-diols, and any of multifunctional (meth)acrylates and/or vinyl ethers. The composition further includes inorganic salt of peracid (10-5000 ppm), and additional ink vehicle component(s) from solids, alkyds, polyesters, or polyamides. The 2,5-bis unsaturated fatty acid esters of 1,4-bis oxa-2,5-cyclohexadiene-2,5-diols is a compound from 3,6-bis methyl, bis linolenate; 2-butenate, ricinoleate, 3-(2-butenyl) bis 6-8 undecadienoate; arachidonate,

myristoleate; n-octanoate, 2-propenoate; 3,6-bis phenyl, crotonate, laurate; 3-methyl-6-hexyl, bis isovalerate, pelargonate, versalate; 3,6-bis methyl, bis tung oil fatty ester; or 3-t-butyl, 2-behenolate, 6-(2-methyl)-2-propenolate.

TECHNOLOGY FOCUS - IMAGING AND COMMUNICATION - Preferred Component: The ink comprises pigments. The coating composition is used as ink vehicle. The ink vehicle is mixed with a fountain solution. The fountain solution comprises organic (hydro)peroxide and/or inorganic salt of peracid. Preferred Process: The printing of ink comprises applying the ink to a press, and printing on paper. It is a lithographic printing

L129 ANSWER 10 OF 12 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN  
 ACCESSION NUMBER: 2004-315558 [29] WPIX  
 DOC. NO. CPI: C2004-119589  
 TITLE: Coating composition for ink, comprises unsaturated fatty acid solutions of poly-alpha-(hydroxy)aliphatic acid(s), and/or their interaction product(s), and specific amount of multifunctional (meth)acrylate esters, and/or vinyl ethers.  
 DERWENT CLASS: A14 A23 A97 E19 G02  
 INVENTOR(S): SUGERMAN, G  
 PATENT ASSIGNEE(S): (SUGE-I) SUGERMAN G; (VOCF-N) VOCFREE INC  
 COUNTRY COUNT: 101  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN	IPC
WO 2004022653	A2	20040318	(200429)*	EN	27	C09D000-00	
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS							
LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW							
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK							
DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR							
KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT							
RO RU SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW							
US 2004154494	A1	20040812	(200454)			C09D011-06	
AU 2003265905	A1	20040329	(200459)			C09D000-00	
EP 1539852	A2	20050615	(200539)	EN		C08G063-02	
R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV							
MC MK NL PT RO SE SI SK TR							
BR 2003014101	A	20050519	(200549)			C08G063-02	
JP 2005538221	W	20051215	(200582)		19	C08L067-04	
MX 2005002550	A1	20060101	(200637)			C08F118-14	
CN 1735644	A	20060215	(200643)			C08G063-00	
KR 2005087780	A	20050831	(200648)			C08G063-02	

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2004022653	A2	WO 2003-US27568	20030903
US 2004154494	A1 Provisional	US 2002-408638P	20020905
		US 2003-653861	20030903
AU 2003265905	A1	AU 2003-265905	20030903
EP 1539852	A2	EP 2003-794597	20030903
		WO 2003-US27568	20030903
BR 2003014101	A	BR 2003-14101	20030903
		WO 2003-US27568	20030903
JP 2005538221	W	WO 2003-US27568	20030903
		JP 2004-534493	20030903

MX 2005002550	A1	WO 2003-US27568	20030903
CN 1735644	A	MX 2005-2550	20050304
KR 2005087780	A	CN 2003-821175	20030903
		WO 2003-US27568	20030903
		KR 2005-703857	20050304

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2003265905	A1 Based on	WO 2004022653
EP 1539852	A2 Based on	WO 2004022653
BR 2003014101	A Based on	WO 2004022653
JP 2005538221	W Based on	WO 2004022653
MX 2005002550	A1 Based on	WO 2004022653
KR 2005087780	A Based on	WO 2004022653

PRIORITY APPLN. INFO: US 2002-408638P 20020905; US  
2003-653861 20030903

## INT. PATENT CLASSIF.:

MAIN: C08F118-14; C08G063-00; C08G063-02; C08L067-04;  
C09D000-00; C09D011-06  
SECONDARY: B05D001-26; C08F118-00; C08G063-08; C08K005-06;  
C08K005-101; C09D011-02; C09D011-08

## BASIC ABSTRACT:

WO2004022653 A UPAB: 20040505

NOVELTY - Coating composition comprises an unsaturated fatty acid solutions of poly- alpha -(hydroxy)aliphatic acid(s), and/or their interaction product(s); and less than 10 weight% of multifunctional (meth)acrylate esters, and/or vinyl ethers.

USE - The invention is used for an ink useful for printing by applying the ink to a press. Printing is lithographic printing. It comprises printing on paper. The invention is useful for an ink vehicle or varnish mixed with a fountain solution (claimed). It is useful in intaglio or off-set, including sheet-fed, cold-web, and heat set web printing.

ADVANTAGE - The invention is fast drying, relative to existing technologies; and offers print quality, color fastness, reduced or no volatile organic compound components, and reduced or no toxic metal-containing components.

Dwg.0/0

FILE SEGMENT: CPI

FIELD AVAILABILITY: AB; DCN

MANUAL CODES: CPI: A04-F06B; A04-F11; A05-E02; A12-W07D; E05-L03C;  
E07-A02B; E07-A03C; E10-C04D3; E10-C04D4; E10-C04D5;  
E10-E04G; E10-E04J; E10-E04K; E10-G02F1; E10-G02F2;  
E10-G02G2; E10-G02H2C; G02-A05C; G05-F

TECH UPTX: 20040505

TECHNOLOGY FOCUS - POLYMERS - Preferred Composition: The coating composition comprises (wt.%): organic zirconium(4) compound(s) (0.4-4); drying oil derived fatty acid solutions (2-15) of poly-alpha-(hydroxy)aliphatic acid(s) (10-35), and/or their interaction product(s); multifunctional (meth)acrylate esters, and/or vinyl ethers (1-7); and catalytic proportions of inorganic salt(s) of peracids. Preferred Component: The coating composition comprises inorganic salt(s) of peracids; and catalytic proportions of organic (hydro)peroxides. The ink vehicle or varnish comprises solids, alkyds, polyesters, or polyamides. Preferred Compound: Poly-alpha-(hydroxy)aliphatic acid(s) is hydroxy acetic acid; 2-hydroxy propionic acid; 2-hydroxy-2-methyl 3-butenic acid; 2 hydroxy butyric acid; 2-hydroxy-6-caprolactone; ethyl 2 hydroxy propanoate; methyl 2-hydroxy (2-methyl)-3-butenate; hydroxy acetic acid,

3-hydroxy i-pentanoic acid; 2-hydroxy-3-methoxy-isobutyric acid; or 2 hydroxy-4-butyrolactone, 2-hydroxy propionic acid, 2-hydroxy 4-pentenoic acid. Multifunctional (meth)acrylate ester is tris methylol propane tris acrylate; pentaerythritol trimethacrylate; sorbitol tetrakis acrylate; tetrakis 1,2-propylene glycol acrylate, methacrylate; terephthalic acid bis 2-methacrylateoethyl ester; ethoxylated(3) bisphenol A dimethacrylate; acrylate terminated polybutadiene(12); bis trimethylol propane bis acrylate, bis allyl ether; zinc bis methacrylate; or 60% castor oil tris acrylate, 40% 1,4-cyclohexane bis methacrylate.

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Compound: The organozirconium compound is zirconium(4) tetrakis octanolato, adduct 2 moles of (bis tridecyl) phosphite; zirconium(4) tetrakis i-decanolato, adduct 2 moles of (tris lauryl) phosphite; oxo zirconium(4) bis i-pentadecanoate; zirconium(4) 2-propanolato, tris (bis butyl)phosphato-O; zirconium(4) neodecanolato, tris (phenyl) sulfonato-O; zirconium(4) t-butanolato, tris(ethyl, benzyl) phosphito; zirconium(4) bis iso-hexanolato, cyclo (bis allyl) diphosphato-O,O; ethylenediolato zirconium(4) cyclo (bis allyl) diphosphato-O,O; 1,3-propylenediolato zirconium(4) linolenate, myristate; or bis 1,4-butene-2 diolato zirconium(4) adduct 1 mole of tris (bis oleyl) phosphite.

L129 ANSWER 11 OF 12 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN  
 ACCESSION NUMBER: 2000-052798 [04] WPIX  
 DOC. NO. CPI: C2000-013583  
 TITLE: Novel (bis)enolate ester composition used as reactive diluents in heat, oxidation and radiation cured inks, paints, coatings and plastics.  
 DERWENT CLASS: A25 E13 G02  
 INVENTOR(S): SUGERMAN, G  
 PATENT ASSIGNEE(S): (SUGE-I) SUGERMAN G  
 COUNTRY COUNT: 29  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN	IPC
WO 9955692	A1	19991104	(200004)*	EN	27	C07D319-12	
RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE							
W: AU BR CA HU JP MX NO RU SE SG TR US							
AU 9871733	A	19991116	(200015)			C07D319-12	

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9955692	A1	WO 1998-US8846	19980427
AU 9871733	A	AU 1998-71733	19980427
		WO 1998-US8846	19980427

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 9871733	A Based on	WO 9955692

PRIORITY APPLN. INFO: WO 1998-US8846 19980427

INT. PATENT CLASSIF.:

MAIN: C07D319-12

BASIC ABSTRACT:

WO 9955692 A UPAB: 20000124

NOVELTY - A composition comprises novel enolate and bisenolate esters of 1,4-dioxa-2,5-cyclohexanediones.

DETAILED DESCRIPTION - Enolate and bisenolate esters of 1,4-dioxa-2,5-cyclohexanediones are generically defined by formula (I). Formulae (II)-(IIA) and (III) define the chemical structure of mono and bisenolic esters respectively.

X groups = independently chosen from optionally saturated, cyclic hydrocarbyl ligands having 24C and optionally ether and/or ester substituents;

R groups = hydrogen, optionally saturated, cyclic ligands;

When R<sub>2</sub>, R<sub>3</sub> = hydrogen, monoenolate esters exist in equilibrium between (II) and (IIA).;

INDEPENDENT CLAIMS are included for:

- (1) Coatings comprising the above composition;
- (2) Thermoplastics comprising the above material; and
- (3) paints comprising the above coating compositions and epoxy resin.

USE - Used as reactive diluents in heat, oxidation and radiation cured printing inks, paints having an epoxy resin component, thermoplastic formulation having 1-10% of thermoplastic resin especially polyvinylchloride, coating composition comprising 1-25 weight % of coatings.

ADVANTAGE - The novel (bis)enolate esters are used as effective reactive diluents. The composition has low **volatile** organic compound content, effective set and dry periods and extreme resolution potential (minimal dot gain). Problems of limited shell stability, toxicology problems, inadequate drying rates and poor substrate adhesion are overcome using these novel (bis)enolate esters. The bisenolate esters cure more rapidly than the conventionally employed polyunsaturated alkyd, (meth)acrylate and/or vinyl ester alternatives under heat, oxidation and radiation.

Dwg.0/0

FILE SEGMENT: CPI  
FIELD AVAILABILITY: AB; GI; DCN  
MANUAL CODES: CPI: A04-E02E2; A08-P01; A12-B01F; A12-W07D; E07-A04;  
G02-A02D2; G02-A03; G02-A04A

L129 ANSWER 12 OF 12 TOXCENTER COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1982:111270 TOXCENTER  
COPYRIGHT: Copyright 2006 ACS  
DOCUMENT NUMBER: CA09704025187G  
TITLE: High solids and nonchromate corrosion resistant primers with titanate coupling agents  
AUTHOR(S): Monte, S. J.; Sugerman, G.  
CORPORATE SOURCE: Kenrich Petrochem., Inc., Bayonne, NJ, 07002, USA.  
SOURCE: Organic Coatings and Plastics Chemistry, (1980) Vol. 43, pp. 158-63.  
CODEN: OCPCDG. ISSN: 0161-214X.  
COUNTRY: UNITED STATES  
DOCUMENT TYPE: Journal  
FILE SEGMENT: CAPLUS  
OTHER SOURCE: CAPLUS 1982:425187  
LANGUAGE: English  
ENTRY DATE: Entered STN: 16 Nov 2001  
Last Updated on STN: 26 Nov 2002

ABSTRACT:

Toxic chromate pigments are replaced in corrosion-resistant water-based primer coatings for metals by quaternized pyrophosphatotitanate-treated SiO<sub>2</sub> pigments.

These pigments provided the same effects in water-based systems as previously achieved by monoalkoxy chelated titanates in hydrocarbon-based systems. A family of quaternized chelated pyrophosphatotitanates containing a \*\*\*methacrylic\*\*\* function is proposed.

CLASSIFICATION CODE: 42-5

SUPPLEMENTARY TERMS: Miscellaneous Descriptors  
pyrophosphatotitanate coupling agent coating

REGISTRY NUMBER: 67729-57-1Q (quaternized)

REGISTRY NUMBER: 82196-74-5; 82196-76-7; 67691-13-8; 7005-47-2

=> fil PASCAL, JICST-EPLUS, JAPIO, TOXCENTER, SCISEARCH; d que l122; d que l123; d que l126; d que l127

FILE 'PASCAL' ENTERED AT 16:26:38 ON 31 JUL 2006

Any reproduction or dissemination in part or in full,  
by means of any process and on any support whatsoever  
is prohibited without the prior written agreement of INIST-CNRS.  
COPYRIGHT (C) 2006 INIST-CNRS. All rights reserved.

FILE 'JICST-EPLUS' ENTERED AT 16:26:38 ON 31 JUL 2006

COPYRIGHT (C) 2006 Japan Science and Technology Agency (JST)

FILE 'JAPIO' ENTERED AT 16:26:38 ON 31 JUL 2006

COPYRIGHT (C) 2006 Japanese Patent Office (JPO)- JAPIO

FILE 'TOXCENTER' ENTERED AT 16:26:38 ON 31 JUL 2006

COPYRIGHT (C) 2006 ACS

FILE 'SCISEARCH' ENTERED AT 16:26:38 ON 31 JUL 2006

Copyright (c) 2006 The Thomson Corporation

L106 23074 SEA VOC#  
L107 214004 SEA VOLATIL?  
L108 22184 SEA NONVOLATIL?  
L110 55357 SEA (ETHER# OR ESTER#) (3A) (HYDROXY? OR UNSAT? OR GLYCOL# OR  
POLYOL# OR OLIGOOL#)  
L111 1508 SEA AMINE#(3A) (UNSAT? OR VINYL)  
L115 2186 SEA POLLUTION FREE  
L116 5105 SEA NONPOLLUT? OR NON POLLUT?  
L122 1 SEA L111 AND L110 AND (L106 OR L107 OR L108 OR L115 OR L116)

L106 23074 SEA VOC#  
L107 214004 SEA VOLATIL?  
L108 22184 SEA NONVOLATIL?  
L109 25388 SEA COALESCEN?  
L110 55357 SEA (ETHER# OR ESTER#) (3A) (HYDROXY? OR UNSAT? OR GLYCOL# OR  
POLYOL# OR OLIGOOL#)  
L111 1508 SEA AMINE#(3A) (UNSAT? OR VINYL)  
L115 2186 SEA POLLUTION FREE  
L116 5105 SEA NONPOLLUT? OR NON POLLUT?  
L123 0 SEA L110 AND L111 AND L109 AND (L106 OR L107 OR L108 OR L115  
OR L116)

L109 25388 SEA COALESCEN?  
L110 55357 SEA (ETHER# OR ESTER#) (3A) (HYDROXY? OR UNSAT? OR GLYCOL# OR  
POLYOL# OR OLIGOOL#)  
L112 157985 SEA METHACRYL? OR METH ACRYL?  
L126 2 SEA L112 AND L110 AND L109

L106 23074 SEA VOC#  
L107 214004 SEA VOLATIL?  
L108 22184 SEA NONVOLATIL?  
L110 55357 SEA (ETHER# OR ESTER#) (3A) (HYDROXY? OR UNSAT? OR GLYCOL# OR



POLYOL# OR OLIGOOL#)  
 L112 157985 SEA METHACRYL? OR METH ACRYL?  
 L115 2186 SEA POLLUTION FREE  
 L116 5105 SEA NONPOLLUT? OR NON POLLUT?  
 L124 2365 SEA L112(S) L110  
 L127 30 SEA L124 AND (L106 OR L107 OR L108 OR L115 OR L116)

=> s l122,l126,l127 not l114

L130 33 (L122 OR L126 OR L127) NOT L114

*previously  
printed w/ inventor search*

=> fil wpix; d que l98; d que l101; d que l104  
 FILE 'WPIX' ENTERED AT 16:27:01 ON 31 JUL 2006  
 COPYRIGHT (C) 2006 THE THOMSON CORPORATION

FILE LAST UPDATED: 27 JUL 2006 <20060727/UP>  
 MOST RECENT DERWENT UPDATE: 200648 <200648/DW>  
 DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE,  
 PLEASE VISIT:  
[http://www.stn-international.de/training\\_center/patents/stn\\_guide.pdf](http://www.stn-international.de/training_center/patents/stn_guide.pdf) <

>>> FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES, SEE  
<http://scientific.thomson.com/support/patents/coverage/latestupdates/>

>>> PLEASE BE AWARE OF THE NEW IPC REFORM IN 2006, SEE  
[http://www.stn-international.de/stndatabases/details/ipc\\_reform.html](http://www.stn-international.de/stndatabases/details/ipc_reform.html) and  
<http://scientific.thomson.com/media/scpdf/ipcrdwp.pdf> <<<

>>> FOR FURTHER DETAILS ON THE FORTHCOMING DERWENT WORLD PATENTS  
 INDEX ENHANCEMENTS PLEASE VISIT:  
[http://www.stn-international.de/stndatabases/details/dwpi\\_r.html](http://www.stn-international.de/stndatabases/details/dwpi_r.html) <<<  
 'BI ABEX' IS DEFAULT SEARCH FIELD FOR 'WPIX' FILE

L64 21 SEA FILE=WPIX ABB=ON SUGERMAN G?/AU  
 L71 89234 SEA FILE=WPIX ABB=ON (VOC/BI,ABEX OR NONVOLATIL?/BI,ABEX OR  
 VOLATIL?/BI,ABEX)  
 L72 10 SEA FILE=WPIX ABB=ON L64 AND L71  
 L73 167926 SEA FILE=WPIX ABB=ON AMINE#/BI,ABEX  
 L74 4120 SEA FILE=WPIX ABB=ON L73 (5A) (UNSAT?/BI,ABEX OR VINYL/BI,ABEX)  
 L75 130488 SEA FILE=WPIX ABB=ON METHACRYL?/BI,ABEX OR METH ACRYL?/BI,ABEX  
 L76 272563 SEA FILE=WPIX ABB=ON ESTER#/BI,ABEX  
 L77 175561 SEA FILE=WPIX ABB=ON ETHER#/BI,ABEX  
 L78 81936 SEA FILE=WPIX ABB=ON (L76 OR L77) (5A) (HYDROXY?/BI,ABEX OR  
 UNSAT?/BI,ABEX OR GLYCOL?/BI,ABEX OR POLYOL?/BI,ABEX OR  
 OLIGOOL?/BI,ABEX)  
 L79 770 SEA FILE=WPIX ABB=ON (L74 OR L75) AND L78 AND L71  
 L83 2 SEA FILE=WPIX ABB=ON L79 AND L72  
 L86 181580 SEA FILE=WPIX ABB=ON G02-A+NT/MC = *paints, varnishes, lacquers, inks, pencil leads,*  
 L87 84525 SEA FILE=WPIX ABB=ON E10-H+NT/MC OR E10-G+NT/MC *crayons, other coatings*  
 L89 430 SEA FILE=WPIX ABB=ON C09D139/IPC *ethers & halogen compounds*  
 L90 2420 SEA FILE=WPIX ABB=ON C08F226/IPC *carboxylic esters*  
 L94 2021 SEA FILE=WPIX ABB=ON G02-A02C4/MC - *paints, varnishes, lacquers*  
 L96 770 SEA FILE=WPIX ABB=ON (L74 OR L75) AND L78 AND L71 *& nitro compounds.*  
 L98 3 SEA FILE=WPIX ABB=ON L96 AND L86 AND L87 AND (L89 OR L90 OR  
 L83 OR L94)  
*based on acrylic nitrites, acids,  
 amides, di & polyacrylates*

L71 89234 SEA FILE=WPIX ABB=ON (VOC/BI,ABEX OR NONVOLATIL?/BI,ABEX OR  
VOLATIL?/BI,ABEX)  
L73 167926 SEA FILE=WPIX ABB=ON AMINE#/BI,ABEX  
L75 130488 SEA FILE=WPIX ABB=ON METHACRYL?/BI,ABEX OR METH ACRYL?/BI,ABEX  
L76 272563 SEA FILE=WPIX ABB=ON ESTER#/BI,ABEX  
L77 175561 SEA FILE=WPIX ABB=ON ETHER#/BI,ABEX  
L80 2869 SEA FILE=WPIX ABB=ON L73 (3A) (UNSAT?/BI,ABEX OR VINYL/BI,ABEX)  
L81 69217 SEA FILE=WPIX ABB=ON (L76 OR L77) (3A) (HYDROXY?/BI,ABEX OR  
UNSAT?/BI,ABEX OR GLYCOL?/BI,ABEX OR POLYOL?/BI,ABEX OR  
OLIGOOL?/BI,ABEX)  
L86 181580 SEA FILE=WPIX ABB=ON G02-A+NT/MC  
L87 84525 SEA FILE=WPIX ABB=ON E10-H+NT/MC OR E10-G+NT/MC  
L100 209 SEA FILE=WPIX ABB=ON L71(S) (L80 OR L75) (S) L81  
L101 3 SEA FILE=WPIX ABB=ON L100 AND L86 AND L87

L73 167926 SEA FILE=WPIX ABB=ON AMINE#/BI,ABEX  
L75 130488 SEA FILE=WPIX ABB=ON METHACRYL?/BI,ABEX OR METH ACRYL?/BI,ABEX  
L76 272563 SEA FILE=WPIX ABB=ON ESTER#/BI,ABEX  
L77 175561 SEA FILE=WPIX ABB=ON ETHER#/BI,ABEX  
L80 2869 SEA FILE=WPIX ABB=ON L73 (3A) (UNSAT?/BI,ABEX OR VINYL/BI,ABEX)

L81 69217 SEA FILE=WPIX ABB=ON (L76 OR L77) (3A) (HYDROXY?/BI,ABEX OR  
UNSAT?/BI,ABEX OR GLYCOL?/BI,ABEX OR POLYOL?/BI,ABEX OR  
OLIGOOL?/BI,ABEX)

L93 2360 SEA FILE=WPIX ABB=ON G02-A02D3/MC  
L94 2021 SEA FILE=WPIX ABB=ON G02-A02C4/MC  
L103 36986 SEA FILE=WPIX ABB=ON VOC#/BI,ABEX OR NONVOLATIL?/BI,ABEX OR  
NON VOLATIL?/BI,ABEX  
L104 4 SEA FILE=WPIX ABB=ON L103(S) (L80 OR L75) (S) L81 AND (L93 OR  
L94)

=> s 198,1101,1104 not 172

L131 7 (L98 OR L101 OR L104) NOT L72

=> fil capl; d que 141; d que 135; d que 163; d que 169

FILE 'CAPLUS' ENTERED AT 16:27:28 ON 31 JUL 2006

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 31 Jul 2006 VOL 145 ISS 6  
 FILE LAST UPDATED: 30 Jul 2006 (20060730/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.  
 They are available for your review at:

<http://www.cas.org/infopolicy.html>

'OBI' IS DEFAULT SEARCH FIELD FOR 'CAPLUS' FILE

L26	134103	SEA	FILE=CAPLUS	ABB=ON	AMINES/CT
L27	2221	SEA	FILE=CAPLUS	ABB=ON	L26 (L) (UNSAT?/OBI OR VINYL/OBI)
L39	6175	SEA	FILE=CAPLUS	ABB=ON	COALESCEN?/OBI
L41	0	SEA	FILE=CAPLUS	ABB=ON	L27 AND L39
L26	134103	SEA	FILE=CAPLUS	ABB=ON	AMINES/CT
L27	2221	SEA	FILE=CAPLUS	ABB=ON	L26 (L) (UNSAT?/OBI OR VINYL/OBI)
L28	51329	SEA	FILE=CAPLUS	ABB=ON	ESTERS/CT
L29	39319	SEA	FILE=CAPLUS	ABB=ON	ETHERS/CT
L30	5405	SEA	FILE=CAPLUS	ABB=ON	L28 (L) (HYDROXY?/OBI OR UNSAT?/OBI)
L31	1923	SEA	FILE=CAPLUS	ABB=ON	L29 (L) (HYDROXY?/OBI OR UNSAT?/OBI)
L32	4145	SEA	FILE=CAPLUS	ABB=ON	VOC/OBI
L33	8911	SEA	FILE=CAPLUS	ABB=ON	NONVOLATI?/OBI
L34	76390	SEA	FILE=CAPLUS	ABB=ON	VOLATIL?/OBI
L35	1	SEA	FILE=CAPLUS	ABB=ON	L27 AND (L30 OR L31) AND (L32 OR L33 OR L34)
L26	134103	SEA	FILE=CAPLUS	ABB=ON	AMINES/CT
L27	2221	SEA	FILE=CAPLUS	ABB=ON	L26 (L) (UNSAT?/OBI OR VINYL/OBI)
L28	51329	SEA	FILE=CAPLUS	ABB=ON	ESTERS/CT
L29	39319	SEA	FILE=CAPLUS	ABB=ON	ETHERS/CT
L30	5405	SEA	FILE=CAPLUS	ABB=ON	L28 (L) (HYDROXY?/OBI OR UNSAT?/OBI)
L31	1923	SEA	FILE=CAPLUS	ABB=ON	L29 (L) (HYDROXY?/OBI OR UNSAT?/OBI)
L37	5832	SEA	FILE=CAPLUS	ABB=ON	(L28 OR L29) (L) (GLYCOL?/OBI OR POLYOL?/OBI OR OLIGOOL?/OBI)
L38	117	SEA	FILE=CAPLUS	ABB=ON	L27 AND (L30 OR L31 OR L37)
L42	923	SEA	FILE=CAPLUS	ABB=ON	L27 (L) USES/RL
L43	18702	SEA	FILE=CAPLUS	ABB=ON	(L28 OR L29) (L) USES/RL
L44	22	SEA	FILE=CAPLUS	ABB=ON	L42 AND L43 AND L38
L62	275029	SEA	FILE=CAPLUS	ABB=ON	42/SC, SX - <i>Coating, inks &amp; related products</i>
L63	6	SEA	FILE=CAPLUS	ABB=ON	L62 AND L44
L28	51329	SEA	FILE=CAPLUS	ABB=ON	ESTERS/CT
L29	39319	SEA	FILE=CAPLUS	ABB=ON	ETHERS/CT
L30	5405	SEA	FILE=CAPLUS	ABB=ON	L28 (L) (HYDROXY?/OBI OR UNSAT?/OBI)
L31	1923	SEA	FILE=CAPLUS	ABB=ON	L29 (L) (HYDROXY?/OBI OR UNSAT?/OBI)
L32	4145	SEA	FILE=CAPLUS	ABB=ON	VOC/OBI
L33	8911	SEA	FILE=CAPLUS	ABB=ON	NONVOLATI?/OBI
L34	76390	SEA	FILE=CAPLUS	ABB=ON	VOLATIL?/OBI
L37	5832	SEA	FILE=CAPLUS	ABB=ON	(L28 OR L29) (L) (GLYCOL?/OBI OR POLYOL?/OBI OR OLIGOOL?/OBI)
L65	212789	SEA	FILE=CAPLUS	ABB=ON	METHACRYL?/OBI OR METH ACRYL?/OBI
L66	779	SEA	FILE=CAPLUS	ABB=ON	L65 AND (L30 OR L31 OR L37)
L67	10	SEA	FILE=CAPLUS	ABB=ON	(L32 OR L33 OR L34) AND L66

L69 9 SEA FILE=CAPLUS ABB=ON L67 NOT ENVIRONMENTAL MODELING/CT

=> s l35,l63,l69 not l3,l128

L132 14 (L35 OR L63 OR L69) NOT (L3 OR L128)

=> dup rem l132,l131,l130

FILE 'CAPLUS' ENTERED AT 16:27:51 ON 31 JUL 2006  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'WPIX' ENTERED AT 16:27:51 ON 31 JUL 2006  
COPYRIGHT (C) 2006 THE THOMSON CORPORATION

FILE 'PASCAL' ENTERED AT 16:27:51 ON 31 JUL 2006  
Any reproduction or dissemination in part or in full,  
by means of any process and on any support whatsoever  
is prohibited without the prior written agreement of INIST-CNRS.  
COPYRIGHT (C) 2006 INIST-CNRS. All rights reserved.

FILE 'JAPIO' ENTERED AT 16:27:51 ON 31 JUL 2006  
COPYRIGHT (C) 2006 Japanese Patent Office (JPO) - JAPIO

FILE 'TOXCENTER' ENTERED AT 16:27:51 ON 31 JUL 2006  
COPYRIGHT (C) 2006 ACS

FILE 'SCISEARCH' ENTERED AT 16:27:51 ON 31 JUL 2006  
Copyright (c) 2006 The Thomson Corporation  
PROCESSING COMPLETED FOR L132  
PROCESSING COMPLETED FOR L131  
PROCESSING COMPLETED FOR L130  
L133 52 DUP REM L132 L131 L130 (2 DUPLICATES REMOVED)  
ANSWERS '1-14' FROM FILE CAPLUS  
ANSWERS '15-21' FROM FILE WPIX  
ANSWERS '22-25' FROM FILE PASCAL  
ANSWERS '26-40' FROM FILE JAPIO  
ANSWERS '41-52' FROM FILE TOXCENTER

=> d ibib ed abs hitind 1-14; d iall abeq tech 15-21; d iall 22-52; fil hom

L133 ANSWER 1 OF 52 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2005:50760 CAPLUS  
DOCUMENT NUMBER: 142:140750  
TITLE: Hair cosmetic compositions containing a conductive  
polymer and a film-forming polymer  
INVENTOR(S): Rollat-Corvol, Isabelle; Samain, Henri  
PATENT ASSIGNEE(S): L'oreal, Fr.  
SOURCE: Eur. Pat. Appl., 28 pp.  
CODEN: EPXXDW  
DOCUMENT TYPE: Patent  
LANGUAGE: French  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1498106	A2	20050119	EP 2004-291773	20040712
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				

FR 2857583	A1	20050121	FR 2003-8671	20030716
JP 2005047913	A2	20050224	JP 2004-209988	20040716
US 2005048022	A1	20050303	US 2004-892344	20040716
PRIORITY APPLN. INFO.:			FR 2003-8671	A 20030716
			US 2003-492296P	P 20030805

ED Entered STN: 20 Jan 2005

AB Hair cosmetic compns. contain a conductive polymer such as a polythiophene or a polypyrrole, and film forming polymers. Thus, Et 3-thiopheneacetate homopolymer was prepared and hydrolyzed with NaOH solution to give poly(3-thiopheneacetic acid). A cosmetic composition was prepared from the above

polymer 4, Luxiset-PUR 3, EtOH 15, aminomethylpropanol qs, and water qs to 100 g.

IC ICM A61K007-06

ICS A61K007-09

CC 62-3 (Essential Oils and Cosmetics)

Section cross-reference(s): 37

IT Hydrocarbons, processes

RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)

(chloro, **volatile**; hair cosmetic compns. containing conductive polymer and film-forming polymer)

IT Hydrocarbons, processes

RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)

(fluoro, **volatile**; hair cosmetic compns. containing conductive polymer and film-forming polymer)

IT **Ethers, biological studies**

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(glycol; hair cosmetic compns. containing conductive polymer and film-forming polymer)

IT Hydrocarbons, processes

RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)

(**volatile**; hair cosmetic compns. containing conductive polymer and film-forming polymer)

IT 79-10-7D, Acrylic acid, polymers 79-41-4D, **Methacrylic acid**, polymers 81-83-4D, Naphthalimide, derivs. 91-64-5D, Coumarin, cationic derivs. 97-65-4D, Itaconic acid, polymers 100-42-5D, Styrene, polymers 107-13-1D, Acrylonitrile, polymers 108-05-4D, Vinyl acetate, polymers 108-31-6D, Maleic anhydride, polymers 110-16-7D, Maleic acid, polymers 110-17-8D, Fumaric acid, polymers 129-00-0D, Pyrene, derivs. 255-58-3D, 2H-Quinolizine, derivs. 273-53-0D, BenzOxazole, derivs. 288-32-4D, Imidazole, derivs. 288-42-6D, Oxazole, derivs. 588-59-0D, Stilbene, derivs. 616-02-4D, Citraconic anhydride, polymers 1199-01-5D, Azlactone, derivs. 1468-26-4D, 8-Azaxanthine, derivs. 2170-03-8D, Itaconic anhydride, polymers 3724-65-0D, Crotonic acid, polymers 9003-01-4, Polyacrylic acid 9003-06-9, Acrylamide-acrylic acid copolymer 9003-20-7, PolyVinyl acetate 9003-53-6, Polystyrene 9003-55-8, Butadiene-styrene copolymer 9019-71-0, Butadiene-styrene-vinylpyridine copolymer 11120-54-0D, Oxadiazole, derivs. 24937-78-8, Ethylene-vinyl acetate copolymer 25035-90-9, Dibutyl maleate-Vinyl acetate copolymer 25087-26-7, Polymethacrylic acid 32597-98-1D, derivs.

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(hair cosmetic compns. containing conductive polymer and film-forming polymer)

L133 ANSWER 2 OF 52 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:50759 CAPLUS

DOCUMENT NUMBER: 142:140802  
 TITLE: Cosmetic compositions containing a conductive polymer and non-film forming rigid particles  
 INVENTOR(S): Rollat-Corvol, Isabelle; Samain, Henri  
 PATENT ASSIGNEE(S): L'oreal, Fr.  
 SOURCE: Eur. Pat. Appl., 20 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: French  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1498105	A2	20050119	EP 2004-291772	20040712
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
FR 2857584	A1	20050121	FR 2003-8678	20030716
JP 2005047912	A2	20050224	JP 2004-209488	20040716
US 2005058676	A1	20050317	US 2004-892334	20040716
US 2006105003	A9	20060518		
PRIORITY APPLN. INFO.:			FR 2003-8678	A 20030716
			US 2003-492298P	P 20030805

ED Entered STN: 20 Jan 2005

AB Cosmetic compns. contain a conductive polymer such as a polythiophene or a polypyrrole, and non-film forming rigid particles such as mineral particles. Thus, Et 3-thiopheneacetate homopolymer was prepared and hydrolyzed with NaOH solution to give poly(3-thiopheneacetic acid). A cosmetic composition was prepared from the above polymer 4, Basoplast 265D 1, EtOH 15, aminomethylpropanol qs, and water qs to 100 g.

IC ICM A61K007-06  
ICS A61K007-09

CC 62-4 (Essential Oils and Cosmetics)  
Section cross-reference(s): 37

IT **Ethers, biological studies**  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(glycol; cosmetic compns. containing conductive polymer and non-film forming rigid particles)

IT Hydrocarbons, processes  
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)  
(volatile; cosmetic compns. containing conductive polymer and non-film forming rigid particles)

IT 75-01-4D, Vinyl chloride, polymers 79-10-7D, Acrylic acid, esters, polymers 79-41-4D, **Methacrylic** acid, esters, polymers 91-64-5D, Coumarin, derivs. 100-42-5D, Styrene, polymers 129-00-0D, Pyrene, derivs. 130-00-7D, Naphtholactam, derivs. 255-58-3D, Quinolizine, xanthene derivs. 273-53-0D, BenzOxazole, derivs. 288-32-4D, Imidazole, derivs. 288-42-6D, Oxazole, derivs. 409-21-2, SiC, biological studies 588-59-0D, Stilbene, derivs. 769-78-8D, Vinyl benzoate, polymers 1199-01-5D, Azlactone, derivs. 1344-28-1, Alumina, biological studies 1468-26-4D, 8-Azaxanthine, derivs. 7440-22-4, Silver, biological studies 7440-57-5, Gold, biological studies 7631-86-9, Silica, biological studies 11120-54-0D, Oxadiazole, derivs. 12033-89-5, Silicon nitride, biological studies 13463-67-7, Titanium oxide, biological studies 25013-15-4D, Vinyltoluene, polymers 32597-98-1D, derivs. 87323-75-9D, Vinyl tert.-butylbenzoate, polymers 91104-57-3, Basoplast 265D  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(cosmetic compns. containing conductive polymer and non-film forming rigid

particles)

L133 ANSWER 3 OF 52 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2004:957473 CAPLUS  
DOCUMENT NUMBER: 141:412513  
TITLE: Stable silicone compositions and surface treatment agents  
INVENTOR(S): Hashimoto, Ryuji; Kobayashi, Yoshiteru  
PATENT ASSIGNEE(S): Matsumoto Chemical Industry Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004315771	A2	20041111	JP 2003-145501	20030417
PRIORITY APPLN. INFO.:			JP 2003-145501	20030417
OTHER SOURCE(S):		MARPAT 141:412513		
ED		Entered STN: 11 Nov 2004		
AB		Stable compns. contain unsatd. ethers and Si compds. having $\geq 1$ isocyanate group bonded to the Si. Thus, a storage-stable liquid contained EtOAc 78.6, hexane 8.7, Cymel 303 0.5, Et vinyl ether 0.8, tetraisocyanatosilane 0.3, DMS S12 0.3, YF 3057 0.6, Catalyst 600 0.03, JP 504 0.1, and Hi-Boron KB 212 (a B polymer) 10.0 parts.		
IC		ICM C09D004-00 ICS B05D007-24; C09D161-20; C09D161-30; C09D183-04; C09D183-06; C09D183-08		
CC		42-10 (Coatings, Inks, and Related Products)		
IT		<b>Amines, uses</b> RL: CAT (Catalyst use); <b>USES (Uses)</b> (salts; stable silicone compns. containing antistatic agents and amino resins and isocyanatosilanes and unsatd. ethers and catalysts for surface treatment)		
IT		<b>Ethers, uses</b> RL: MOA (Modifier or additive use); <b>USES (Uses)</b> (unsatd.; stable silicone compns. containing antistatic agents and amino resins and isocyanatosilanes and unsatd. ethers and catalysts for surface treatment)		

L133 ANSWER 4 OF 52 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2003:525539 CAPLUS  
DOCUMENT NUMBER: 139:86790  
TITLE: Aqueous ink-jet ink compositions  
INVENTOR(S): Kataoka, Shuichi; Kubota, Kazuhide; Watanabe, Kazuaki; Takemoto, Kiyohiko  
PATENT ASSIGNEE(S): Seiko Epson Corp., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 3  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003192956	A2	20030709	JP 2001-396126	20011227
WO 2003055953	A1	20030710	WO 2002-JP13853	20021227

W: CN, US  
 RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR  
 EP 1460112 A1 20040922 EP 2002-792068 20021227  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, CY, TR, BG, CZ, EE, SK  
 US 2004249018 A1 20041209 US 2004-494076 20040429  
 PRIORITY APPLN. INFO.: JP 2001-396126 A 20011227  
 JP 2001-398518 A 20011227  
 JP 2001-398524 A 20011227  
 WO 2002-JP13853 W 20021227

ED Entered STN: 10 Jul 2003  
 AB Title compns., having good adhesion and gloss without impairing discharge and storage stability, contain colorants, wetting agents, and resins prepared from ethylenic unsatd. carboxylic acids and other monomers in the presence of OH-containing water-soluble polymers or polymerizable surfactants to form polymers with acid value of  $\leq 40$  and a pH adjusted by inorg. bases. An aqueous ink containing C.I. pigment red 122 dispersion, Et acrylate-Me acrylate-methacrylic acid copolymer (prepared in presence of polyvinyl alc.) Na salt, glycerol, ethylene glycol, triethanolamine, and 2-pyrrolidone showed viscosity change of  $< 0.3$  cPs after 1 wk at  $70^\circ$  and gave prints with good adhesion to substrates and high gloss.  
 IC ICM C09D011-00  
 ICS B41J002-01; B41M005-00  
 CC 42-12 (Coatings, Inks, and Related Products)  
 IT **Ethers, uses**  
 RL: TEM (Technical or engineered material use); **USES (Uses)** (glycol, penetrating agents; **unsatd.** acid-based polymer salt- and wetting agent-containing aqueous colored ink-jet inks with high storage stability, adhesion, and gloss)  
 IT **Amines, uses**  
 RL: TEM (Technical or engineered material use); **USES (Uses)** (tertiary, wetting agents; **unsatd.** acid-based polymer salt- and wetting agent-containing aqueous colored ink-jet inks with high storage stability, adhesion, and gloss)

L133 ANSWER 5 OF 52 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2002:637757 CAPLUS  
 DOCUMENT NUMBER: 137:171123  
 TITLE: Aqueous coating composition that is substantially or completely free of **volatile** organic substances, method for producing the same and the use thereof  
 INVENTOR(S): Nickolaus, Ralf; Rink, Heinz-Peter; Clauss, Reinhold; Wessling, Elisabeth; Loecken, Wilma; Bendix, Maximilian; Mikolajetz, Dunja  
 PATENT ASSIGNEE(S): BASF Coatings AG, Germany  
 SOURCE: PCT Int. Appl., 64 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002064692	A1	20020822	WO 2002-EP1460	20020213
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,				



CO, CR, CU, CZ, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM,  
 HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS,  
 LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL,  
 PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA,  
 UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,  
 CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,  
 BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

DE 10106566 A1 20020822 DE 2001-10106566 20010213  
 EP 1368441 A1 20031210 EP 2002-710851 20020213

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

US 2004072941 A1 20040415 US 2003-250694 20030703

PRIORITY APPLN. INFO.: DE 2001-10106566 A 20010213

WO 2002-EP1460 W 20020213

ED Entered STN: 23 Aug 2002

AB The inventive storage-stable coating composition is produced by mixing (A) at least one aqueous primary dispersion that contains dispersed and/or emulsified, solid and/or liquid polymer particles and/or dispersed solid core-shell particles with a particle diameter of  $\leq 500$  nm, producible by radical micro- or mini-emulsion polymerization of at least one olefinically saturated monomer in the presence of at least one hydrophobic additive, with (B) at least one secondary aqueous polyurethane dispersion that contains a polyurethane and at least one light stabilizer, selected from the group of the regenerable free-radical scavengers. Typical hydrophobic additives used in the preparation of component (A) are (1) crosslinking monomers of the polymers prepared as component (A) and crosslinking agents for component (B), (2) C9-16 acyclic alkane polyols, and (3) other hydrophobic compds. This composition gives films with good weather- and light resistance and homogeneity. A typical component (A) was manufactured by polymerization of a composition

containing Me methacrylate 6.6, Bu acrylate 7.9, styrene 3.3, hydroxypropyl methacrylate 7.1, diphenylethylene 0.5, 2,4-diethyl-1,5-octanediol 0.8, Tinuvin 400 0.4, Creelan VPLS (3,5-dimethylpyrazole-blocked IPDI-based polyisocyanate) [component (B) crosslinker/hydrophobic additive] 13.4, bis(4-tert-butylcyclohexyl) peroxydicarbonate 2.3, Abex EP 110 (NH<sub>4</sub> nonyl Ph ether sulfate, 30% aqueous solution) 1.07, and water 56.6 parts at 70°.

IC ICM C09D151-00

ICS C08F291-00

CC 42-10 (Coatings, Inks, and Related Products)

ST weather resistant acrylic polymer polyurethane blend waterborne coating; blocked polyisocyanate crosslinker acrylic polymer polyurethane blend waterborne coating; diphenylethylene copolymer polyurethane blend waterborne coating; styrene copolymer polyurethane blend waterborne coating; hydroxypropyl **methacrylate** copolymer polyurethane blend waterborne coating; light resistant acrylic polymer polyurethane blend waterborne coating; **VOC** lean acrylic polymer polyurethane blend waterborne coating

IT Light stabilizers

(VOC-lean aqueous compns. containing unsatd. compds.-based polymers, hydrophobic additives, polyurethanes, and light stabilizers for coatings)

IT Polyurethanes, uses

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (VOC-lean aqueous compns. containing unsatd. compds.-based polymers, hydrophobic additives, polyurethanes, and light stabilizers for coatings)

IT Automobiles

(VOC-lean aqueous compns. containing unsatd. compds.-based polymers,

- hydrophobic additives, polyurethanes, and light stabilizers for coatings for automobiles)
- IT Containers  
(VOC-lean aqueous compns. containing unsatd. compds.-based polymers, hydrophobic additives, polyurethanes, and light stabilizers for coatings for containers)
- IT Cooking utensils  
(VOC-lean aqueous compns. containing unsatd. compds.-based polymers, hydrophobic additives, polyurethanes, and light stabilizers for coatings for cookware)
- IT Doors  
(VOC-lean aqueous compns. containing unsatd. compds.-based polymers, hydrophobic additives, polyurethanes, and light stabilizers for coatings for doors)
- IT Furniture  
(VOC-lean aqueous compns. containing unsatd. compds.-based polymers, hydrophobic additives, polyurethanes, and light stabilizers for coatings for furniture)
- IT Household furnishings  
(VOC-lean aqueous compns. containing unsatd. compds.-based polymers, hydrophobic additives, polyurethanes, and light stabilizers for coatings for household furnishings)
- IT Radiators  
(VOC-lean aqueous compns. containing unsatd. compds.-based polymers, hydrophobic additives, polyurethanes, and light stabilizers for coatings for radiators)
- IT Electrodeposits  
(VOC-lean aqueous compns. containing unsatd. compds.-based polymers, hydrophobic additives, polyurethanes, and light stabilizers for electrophoretic coatings)
- IT Alcohols, uses  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(aliphatic, hydrophobic additive; VOC-lean aqueous compns. containing unsatd. compds.-based polymers, hydrophobic additives, polyurethanes, and light stabilizers for sealants)
- IT Fats and Glyceridic oils, uses  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(animal, hydrophobic additive; VOC-lean aqueous compns. containing unsatd. compds.-based polymers, hydrophobic additives, polyurethanes, and light stabilizers for coatings)
- IT Coating materials  
(coil; VOC-lean aqueous compns. containing unsatd. compds.-based polymers, hydrophobic additives, polyurethanes, and light stabilizers for coil coatings)
- IT Windows  
(frames; VOC-lean aqueous compns. containing unsatd. compds.-based polymers, hydrophobic additives, polyurethanes, and light stabilizers for coatings for window frames)
- IT Amines, uses  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(hindered, light stabilizer; VOC-lean aqueous compns. containing unsatd. compds.-based polymers, hydrophobic additives, polyurethanes, and light stabilizers for coatings)
- IT Crosslinking agents  
Dyes  
(hydrophobic additive; VOC-lean aqueous compns. containing unsatd. compds.-based polymers, hydrophobic additives, polyurethanes, and light

- stabilizers for coatings)
- IT Macromonomers  
Polysiloxanes, uses  
Silanes  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(hydrophobic additive; VOC-lean aqueous compns. containing unsatd. compds.-based polymers, hydrophobic additives, polyurethanes, and light stabilizers for coatings)
- IT Amines, uses  
Aromatic hydrocarbons, uses  
Cycloalkanols  
Hydrocarbons, uses  
Thiols, uses  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(hydrophobic additive; VOC-lean aqueous compns. containing unsatd. compds.-based polymers, hydrophobic additives, polyurethanes, and light stabilizers for sealants)
- IT Coating materials  
(light-resistant; VOC-lean aqueous compns. containing unsatd. compds.-based polymers, hydrophobic additives, polyurethanes, and light stabilizers for coatings)
- IT Polyurethanes, uses  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(polyester-; VOC-lean aqueous compns. containing unsatd. compds.-based polymers, hydrophobic additives, polyurethanes, and light stabilizers for coatings)
- IT Alcohols, uses  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(polyhydric, hydrophobic additive; VOC-lean aqueous compns. containing unsatd. compds.-based polymers, hydrophobic additives, polyurethanes, and light stabilizers for coatings)
- IT Coating materials  
(thermosetting; VOC-lean aqueous compns. containing unsatd. compds.-based polymers, hydrophobic additives, polyurethanes, and light stabilizers for thermosetting coatings)
- IT Amides, uses  
**Esters, uses**  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(unsatd., hydrophobic additive; VOC-lean aqueous compns. containing unsatd. compds.-based polymers, hydrophobic additives, polyurethanes, and light stabilizers for coatings)
- IT Fats and Glyceridic oils, uses  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(vegetable, hydrophobic additive; VOC-lean aqueous compns. containing unsatd. compds.-based polymers, hydrophobic additives, polyurethanes, and light stabilizers for coatings)
- IT Coating materials  
(water-thinned, weather-resistant; VOC-lean aqueous compns. containing unsatd. compds.-based polymers, hydrophobic additives, polyurethanes, and light stabilizers for coatings)
- IT Adhesives  
(water-thinned; VOC-lean aqueous compns. containing unsatd. compds.-based polymers, hydrophobic additives, polyurethanes, and light stabilizers for adhesives)

- IT Sealing compositions  
(water-thinned; VOC-lean aqueous compns. containing unsatd. compds.-based polymers, hydrophobic additives, polyurethanes, and light stabilizers for sealants)
- IT 4098-71-9D, IPDI, 3,5-dimethylpyrazole-blocked  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(Crelan VPLS, hydrophobic additive/polyurethane crosslinker; VOC-lean aqueous compns. containing unsatd. compds.-based polymers, hydrophobic additives, polyurethanes, and light stabilizers for coatings)
- IT 446873-25-2P  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(VOC-lean aqueous compns. containing unsatd. compds.-based polymers, hydrophobic additives, polyurethanes, and light stabilizers for coatings)
- IT 822-06-0D, HDI, isocyanurate-based polyisocyanate, polyester-polyurethanes 446048-89-1, Butyl acrylate-diphenylethylene-hydroxypropyl methacrylate-methyl methacrylate-styrene copolymer  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(VOC-lean aqueous compns. containing unsatd. compds.-based polymers, hydrophobic additives, polyurethanes, and light stabilizers for coatings)
- IT 67-51-6D, 3,5-Dimethylpyrazole, reaction products with IPDI-based polyisocyanates 4098-71-9D, IPDI, polyisocyanates, reaction products with dimethylpyrazole 94277-83-5, 2,4-Diethyl-1,5-octanediol  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(hydrophobic additive/polyurethane crosslinker; VOC-lean aqueous compns. containing unsatd. compds.-based polymers, hydrophobic additives, polyurethanes, and light stabilizers for coatings)
- IT 122586-52-1, Tinuvin 123 192662-79-6, Tinuvin 400  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(light stabilizer; VOC-lean aqueous compns. containing unsatd. compds.-based polymers, hydrophobic additives, polyurethanes, and light stabilizers for coatings)
- REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L133 ANSWER 6 OF 52 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:637725 CAPLUS

DOCUMENT NUMBER: 137:171120

TITLE: Aqueous primary dispersion, substantially or completely devoid of **volatile** organic substances, method for the production thereof and use of the same

INVENTOR(S): Nickolaus, Ralf; Rink, Heinz-peter; Clauss, Reinhold; Wessling, Elisabeth; Loecken, Wilma; Freitag, Nicole; Mikolajetz, Dunja

PATENT ASSIGNEE(S): BASF Coatings AG, Germany

SOURCE: PCT Int. Appl., 61 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002064652	A1	20020822	WO 2002-EP1461	20020213
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, VZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10106567	A1	20020822	DE 2001-10106567	20010213
EP 1368396	A1	20031210	EP 2002-701273	20020213
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2004048968	A1	20040311	US 2003-250586	20030702
PRIORITY APPLN. INFO.:				
			DE 2001-10106567	A 20010213
			WO 2002-EP1461	W 20020213

ED Entered STN: 23 Aug 2002

AB The invention relates to an aqueous primary dispersion, substantially or completely devoid of volatile organic substances, containing dispersed and/or emulsified solid and/or liquid polymer particles and/or dispersed solid core-shell particles with a particle diameter  $\leq 500$  nm. Said dispersion is obtained by the radical micro- or mini-emulsion polymerization of at least one olefinically unsatd. monomer, in the presence of at least one hydrophobic additive and at least one oligomeric polyester with a number average

mol. weight of between 150 and 1500 daltons, a hydroxyl value of between 100 and 1000 mg KOH/g and an acid value  $<20$  mg KOH/g. Typical hydrophobic additives are (1) crosslinker for the unsatd. monomer-based polymer, (2) C9-16 (a)cyclic alkane polyols, and (3) other hydrophobic compds. This primary dispersion exhibits low viscosity and has high solids content. The invention also relates to a method for the production of said dispersion and to the use thereof as a coating, adhesive and sealant or for producing a coating, adhesive or sealant. A typical primary dispersion was manufactured by polymerization of a composition containing Me methacrylate 4.3, Bu acrylate

5.2,

styrene 2.2, hydroxypropyl methacrylate 4.7, diphenylethylene 0.5, 2,4-diethyl-1,5-octanediol (hydrophobic additive) 0.5, Tinuvin 400 0.3, Crelan VPLS (3,5-dimethylpyrazole-block IPDI-based polyisocyanate) (hydrophobic additive) 18.2, 13.039:33.409:28.76:24.792 diethylene glycol-isophthalic acid-neopentyl glycol-trimethylolpropane copolymer 1.5, bis(4-tert-butylcyclohexyl) peroxydicarbonate 2.3, Abex EP110 (NH<sub>4</sub> nonylphenyl ether sulfate, 30% aqueous solution) 1.04, and water 59.4 parts at 70°.

IC ICM C08F283-02

ICS C08F002-22; C09D151-08; C09J151-08

CC 42-10 (Coatings, Inks, and Related Products)

ST VOC lean acrylic polymer polyester blend waterborne coating;  
 sealant water thinned VOC lean acrylic polymer polyester blend;  
 adhesive water thinned VOC lean acrylic polymer polyester blend;  
 trimethylolpropane polyester acrylic polymer blend waterborne coating;  
 neopentyl glycol polyester acrylic polymer blend waterborne coating;  
 isophthalate polyester acrylic polymer blend waterborne coating;  
 diethylene glycol polyester acrylic polymer blend waterborne coating;  
 butyl acrylate copolymer polyester blend waterborne coating;  
 diphenylethylene copolymer polyester blend waterborne coating; styrene  
 copolymer polyester blend waterborne coating; hydroxypropyl  
 methacrylate copolymer polyester blend waterborne coating

- IT Automobiles  
(VOC-lean aqueous primary dispersions containing acrylic polymers, hydrophobic additives, and polyesters for automobile coatings)
- IT Polyesters, uses  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(VOC-lean aqueous primary dispersions containing acrylic polymers, hydrophobic additives, and polyesters for coatings, adhesives, and sealants)
- IT Doors  
(VOC-lean aqueous primary dispersions containing acrylic polymers, hydrophobic additives, and polyesters for door coatings)
- IT Electrodeposits  
(VOC-lean aqueous primary dispersions containing acrylic polymers, hydrophobic additives, and polyesters for electrophoretic coatings)
- IT Containers  
(VOC-lean aqueous primary dispersions containing acrylic polymers, hydrophobic additives, and polyesters for window container coatings)
- IT Cooking utensils  
(VOC-lean aqueous primary dispersions containing acrylic polymers, hydrophobic additives, and polyesters for window cookware coatings)
- IT Electric apparatus  
(VOC-lean aqueous primary dispersions containing acrylic polymers, hydrophobic additives, and polyesters for window elec. apparatus coatings)
- IT Furniture  
(VOC-lean aqueous primary dispersions containing acrylic polymers, hydrophobic additives, and polyesters for window furniture coatings)
- IT Household furnishings  
(VOC-lean aqueous primary dispersions containing acrylic polymers, hydrophobic additives, and polyesters for window household furnishing coatings)
- IT Radiators  
(VOC-lean aqueous primary dispersions containing acrylic polymers, hydrophobic additives, and polyesters for window radiator coatings)
- IT Alcohols, uses  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(aliphatic, hydrophobic additive; VOC-lean aqueous primary dispersions containing acrylic polymers, hydrophobic additives, and polyesters for coatings, adhesives, and sealants)
- IT Fats and Glyceridic oils, uses  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(animal, hydrophobic additive; VOC-lean aqueous primary dispersions containing acrylic polymers, hydrophobic additives, and polyesters for coatings, adhesives, and sealants)
- IT Coating materials  
(coil; VOC-lean aqueous primary dispersions containing acrylic polymers, hydrophobic additives, and polyesters for window coil coatings)
- IT Windows  
(frames; VOC-lean aqueous primary dispersions containing acrylic polymers, hydrophobic additives, and polyesters for window frame coatings)
- IT Crosslinking agents  
Dyes  
(hydrophobic additive; VOC-lean aqueous primary dispersions containing acrylic polymers, hydrophobic additives, and polyesters for coatings, adhesives, and sealants)
- IT Aromatic hydrocarbons, uses

Cycloalkanols

Hydrocarbons, uses

Macromonomers

Polysiloxanes, uses

Silanes

Thiols, uses

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(hydrophobic additive; VOC-lean aqueous primary dispersions containing acrylic polymers, hydrophobic additives, and polyesters for coatings, adhesives, and sealants)

IT Alcohols, uses

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(polyhydric, hydrophobic additive; VOC-lean aqueous primary dispersions containing acrylic polymers, hydrophobic additives, and polyesters for coatings, adhesives, and sealants)

IT Coating materials

(thermosetting; VOC-lean aqueous primary dispersions containing acrylic polymers, hydrophobic additives, and polyesters for thermosetting coatings)

IT Amides, uses

**Esters, uses**

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(unsatd., hydrophobic additive; VOC-lean aqueous primary dispersions containing acrylic polymers, hydrophobic additives, and polyesters for coatings, adhesives, and sealants)

IT Fats and Glyceridic oils, uses

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(vegetable, hydrophobic additive; VOC-lean aqueous primary dispersions containing acrylic polymers, hydrophobic additives, and polyesters for coatings, adhesives, and sealants)

IT Adhesives

Coating materials

Sealing compositions

(water-thinned; VOC-lean aqueous primary dispersions containing acrylic polymers, hydrophobic additives, and polyesters for coatings, adhesives, and sealants)

IT 446048-89-1P, Butyl acrylate-diphenylethylene-hydroxypropyl methacrylate-methyl methacrylate-styrene copolymer

446048-91-5P, Diethylene glycol-isophthalic acid-neopentyl glycol-trimethylolpropane copolymer

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(VOC-lean aqueous primary dispersions containing acrylic polymers, hydrophobic additives, and polyesters for coatings, adhesives, and sealants)

IT 67-51-6D, 3,5-Dimethylpyrazole, reaction products with IPDI-based polyisocyanate 4098-71-9D, IPDI, polyisocyanates, reaction products with dimethylpyrazole 94277-83-5, 2,4-Diethyl-1,5-octanediol

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(hydrophobic additive; VOC-lean aqueous primary dispersions containing acrylic polymers, hydrophobic additives, and polyesters for coatings, adhesives, and sealants)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L133 ANSWER 7 OF 52 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2001:762900 CAPLUS  
 DOCUMENT NUMBER: 135:305243  
 TITLE: Coating with polymers by filamented gas discharge  
 INVENTOR(S): Thyen, Rudolf; Kläeke, Niklas; Hoepfner, Katrin;  
 Klages, Claus-Peter  
 PATENT ASSIGNEE(S): Fraunhofer-Gesellschaft zur Foerderung der Angewandten  
 Forschung e.V., Germany  
 SOURCE: PCT Int. Appl., 21 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001076773	A2	20011018	WO 2001-EP4108	20010410
WO 2001076773	A3	20020228		
W: JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
DE 10017846	A1	20011025	DE 2000-10017846	20000411
DE 10017846	C2	20020314		
EP 1272286	A2	20030108	EP 2001-927907	20010410
EP 1272286	B1	20040317		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
AT 261781	E	20040415	AT 2001-927907	20010410
PRIORITY APPLN. INFO.:				
			DE 2000-10017846	A 20000411
			WO 2001-EP4108	W 20010410

ED Entered STN: 19 Oct 2001

AB In the title process, giving plasma coatings with a high d. of functional groups, a carrier gas and a polymerizable organic compound (an unsatd. compound containing CF<sub>3</sub> groups or functional groups containing O, N, S, or P) are fed to the gas discharge. Glycidyl methacrylate was carried on N (10 L/min) to an a.c. gas discharge (5-10 kV, 38 kHz, 40 W) to deposit a 10-nm coating on substrates (polyethylene, polypropylene).

IC ICM B05D007-24

CC 42-2 (Coatings, Inks, and Related Products)

IT Alcohols, uses

Aldehydes, uses

**Amines, uses**

Carboxylic acids, uses

Epoxides

**Ethers, uses**

Ketones, uses

Nitriles, uses

Nitro compounds

Phosphates, uses

Sulfones

Sulfonic acids, uses

Sulfoxides

Thioethers

Thiols (organic), uses

RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); **USES (Uses)**

(unsatd., polymers; coating with polymers by filamented gas discharge)



L133 ANSWER 8 OF 52 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1999:56338 CAPLUS  
 DOCUMENT NUMBER: 130:111601  
 TITLE: Waterborne traffic paints having improved fast dry characteristic and method of producing traffic markings therefrom  
 INVENTOR(S): Schall, Donald Craig; Edwards, Steven Scott  
 PATENT ASSIGNEE(S): Rohm and Haas Company, USA  
 SOURCE: U.S., 9 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5861188	A	19990119	US 1997-879496	19970522
US 6013721	A	20000111	US 1998-176499	19981021
			US 1997-879496	A3 19970522

## PRIORITY APPLN. INFO.:

ED Entered STN: 27 Jan 1999

AB Traffic paint compns. having improved fast dry characteristic comprise a blend of an anionically stabilized polymer binder, a polyfunctional amine polymer having an amine and an acid functionality therein and an amount of volatile base sufficient to raise the pH of the composition to convert essentially all of the polyfunctional amine polymer to a non-ionic state, further providing improved storage stability. Thus, a traffic paint composition comprising an anionically stabilized latex of Bu acrylate-Me methacrylate-methacrylic acid copolymer 267.0, water 16.3, ammonia 3.2, dimethylaminoethyl methacrylate-methacrylic acid copolymer 5.8, dispersant 2.6, surfactant 1.7, defoamer 1.3, white pigment 60.0, extender 456.4, methanol 18.0, Texanol ester alc. 13.8, defoamer 2.0, and water 10.3 g, applied to a wet film 320- $\mu$ m thick on glass, gave 10 min dry-to-no-pickup time, 88 Krebs units before storage, 88 Krebs units after storage, and passed the storage stability, compared to 20, 102, 141, and failed, resp., for a conventional waterborne traffic paint known as Dura-Line 2000.

IC ICM B05D005-02

ICS F21V007-00

INCL 427137000

CC 42-7 (Coatings, Inks, and Related Products)

IT Esters, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)

(amino, alkylaminoalkyl ester of  $\alpha$ ,  $\beta$  unsatd.

carboxylic acids, copolymer with acid monomers; waterborne traffic paints having improved drying characteristic and method of producing traffic markings therefrom)

IT Esters, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)

(half-esters of ethylenically unsatd. dicarboxylic acid,

copolymer with amine monomers; waterborne traffic paints having improved drying characteristic and method of producing traffic markings therefrom)

IT Coagulants

(volatile acids; waterborne traffic paints having improved drying characteristic and method of producing traffic markings therefrom)

IT 7664-41-7, Ammonia, uses

RL: MOA (Modifier or additive use); USES (Uses)

(volatile base; waterborne traffic paints having improved

drying characteristic and method of producing traffic markings therefrom)

IT 25035-69-2, Butyl acrylate-**methacrylic** acid-methylmethacrylate copolymer 65899-81-2, Butyl acrylate-dimethylaminoethylmethacrylate-**methacrylic** acid-methylmethacrylate copolymer  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(waterborne traffic paints having improved drying characteristic and method of producing traffic markings therefrom)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L133 ANSWER 9 OF 52 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:631771 CAPLUS

DOCUMENT NUMBER: 135:361687

TITLE: Preliminary industry characterization wood building products surface coating  
CORPORATE SOURCE: Midwest Research Inst., Midwest Res. Inst., Cary, NC, 27511-9232, USA

SOURCE: United States Environmental Protection Agency, Office of Air Quality Planning and Standards, [Technical Report] EPA (1998), EPA-453/R-00-004, i-v, 1/1-1/3, 2/1-2/4, 3/1-3/24, 4/1, A/1-A/2, B/1-B/3, C/1-C/3  
CODEN: UEPEDY

DOCUMENT TYPE: Report

LANGUAGE: English

ED Entered STN: 31 Aug 2001

AB Pursuant to Section 112(d) of the Clean Air Act (CAA), USEPA is developing national emission stds. for hazardous air pollutants (NESHAP) for the wood building products surface coating source category. EPA is required to publish final emission stds. for the wood building products surface coating source category by Nov. 15, 2000. For this source category, a national volatile organic compound (VOC) rule or control technique guidelines may also be developed under Section 183(e) of the CAA. There is a possibility that case-by-case maximum achievable control technol. (MACT) detns. will be required under Section 112 (g) for newly constructed and/or reconstructed major sources. Information summarized in this document is intended to provide preliminary information which can be used by states which may have to make case-by-case MACT detns. under Sections 112(g) or 112(j) of the CAA. Section 1 gives an overview of the initial MACT development phase for this source category. Section 2 summarizes issues raised and information gathering techniques used in this process. Section 3 gives a preliminary characterization of the wood building products source category, focusing on source category products, types of coatings used, application methods, emissions, and emission control techniques. Section 4 addresses recommendations for the next steps in the MACT development process.

CC 59-2 (Air Pollution and Industrial Hygiene)

Section cross-reference(s): 42, 43

ST hazardous air pollution national emission std; wood building products surface coating source category; **volatile** org emission surface coating wood building product

IT **Ethers, occurrence**

RL: OCU (Occurrence, unclassified); POL (Pollutant); OCCU (Occurrence) (glycol; preliminary industry characterization of wood building products surface coating source category for hazardous air pollutant emission stds., USA)

IT **Volatile** organic compounds

RL: OCU (Occurrence, unclassified); POL (Pollutant); OCCU (Occurrence) (preliminary industry characterization of wood building products

surface coating source category for hazardous air pollutant emission  
stds., USA)

IT 50-00-0, Formaldehyde, occurrence 67-56-1, Methanol, occurrence  
67-66-3, Chloroform, occurrence 71-55-6, 1,1,1-Trichloroethane  
74-87-3, Chloromethane, occurrence 75-07-0, Acetaldehyde, occurrence  
75-09-2, Dichloromethane, occurrence 78-93-3, Methyl ethyl ketone,  
occurrence 80-62-6, Methyl **methacrylate** 84-74-2, Dibutyl  
phthalate 100-41-4, Ethylbenzene, occurrence 100-42-5, Styrene,  
occurrence 107-21-1, Ethylene glycol, occurrence 108-10-1, Methyl  
isobutyl ketone 108-88-3, Toluene, occurrence 108-95-2, Phenol,  
occurrence 110-54-3, n-Hexane, occurrence 120-82-1,  
1,2,4-Trichlorobenzene 1319-77-3, Cresol 1330-20-7, Xylene, occurrence  
7647-01-0, Hydrochloric acid, occurrence 7782-50-5, Chlorine, occurrence  
RL: OCU (Occurrence, unclassified); POL (Pollutant); OCCU (Occurrence)  
(preliminary industry characterization of wood building products  
surface coating source category for hazardous air pollutant emission  
stds., USA)

L133 ANSWER 10 OF 52 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:1157 CAPLUS

DOCUMENT NUMBER: 132:294659

TITLE: The influence of cure systems on the formation of  
**volatile** components in RTM processed UP  
articles

AUTHOR(S): Reijnders, J. M.

CORPORATE SOURCE: Akzo Nobel bv, Neth.

SOURCE: BPF Composites Congress '98, Papers, 21st, Blackpool,  
United Kingdom, Dec. 1-2, 1998 (1998), Paper  
23/1-Paper 23/12. British Plastics Federation:  
London, UK.

CODEN: 68MIAC

DOCUMENT TYPE: Conference

LANGUAGE: English

ED Entered STN: 03 Jan 2000

AB Resin transfer molded (RTM) parts containing low-profile (LP) and low-shrink  
(LS) additives have been found to contain high volatile components and  
these are present or formed both during the process and storage. Two  
major volatiles namely monomeric styrene and benzaldehyde were studied in  
RTM laminates molded at elevated temps. The formulation ingredients and  
processing parameters were identified which give rise to volatiles.

CC 38-2 (Plastics Fabrication and Uses)

ST resin transfer molding unsatd polyester; **volatile** formation  
molding unsatd polyester

IT **Esters, uses**

RL: CAT (Catalyst use); USES (Uses)

(peroxy, Trigonox, accelerator; influence of cure systems on residual  
styrene and benzaldehyde formation in resin transfer molded parts from  
**unsatd.** polyesters)

IT 9003-20-7, Poly(vinyl acetate) 9003-53-6, Polystyrene 9011-14-7,  
Poly(methyl **methacrylate**)

RL: NUU (Other use, unclassified); USES (Uses)

(low-profile low-shrink additive; influence of cure systems on residual  
styrene and benzaldehyde formation in resin transfer molded parts from  
unsatd. polyesters)

L133 ANSWER 11 OF 52 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1994:272195 CAPLUS

DOCUMENT NUMBER: 120:272195

TITLE: Thermoexpandable microcapsules having small particle  
size and their production

INVENTOR(S): Kida, Sueo; Sasaki, Yoshitugu; Fujiwara, Takeshi  
 PATENT ASSIGNEE(S): Matsumoto Yushi-Seiyaku Co., Ltd., Japan  
 SOURCE: Eur. Pat. Appl., 6 pp.  
 CODEN: EPXXDW

DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 569234	A1	<del>19931110</del>	EP 1993-303506	19930506
EP 569234	B1	19970716		
EP 569234	B2	20040707		
R: DE, FR, GB, IT, SE				
JP 05309262	A2	19931122	JP 1992-115854	19920508
JP 3236062	B2	20011204		
PRIORITY APPLN. INFO.:			JP 1992-115854	A 19920508

ED Entered STN: 28 May 1994

AB Thermoexpandable microcapsules with average diameter 1-10  $\mu$ m and maximum expansion rate  $\geq 10$ -fold comprises a volatile solvent encapsulated in a polymer shell, and are manufactured by suspension-polymerization of monomers in the presence of the solvent and compound having a hydrophilic group and a long hydrocarbon chain. Thus, a mixture containing acrylonitrile, vinylidene chloride, Me methacrylate, isobutane, di-iso-Pr peroxydicarbonate, and lauric acid was suspension-polymerized to give microcapsules with average particle

size 8.6  $\mu$ m and volumetric expansion rate .apprx.60-fold when heated 1 min at 130°.

IC ICM C08J009-32

ICS B01J013-02; B01J013-14

CC 37-6 (Plastics Manufacture and Processing)

ST acrylonitrile copolymer thermoexpandable microcapsule; hydrophilic hydrocarbon additive thermoexpandable microcapsule manuf; lauric acid additive thermoexpandable microcapsule manuf; isobutane contg polymeric thermoexpandable microcapsule; methacrylate copolymer thermoexpandable microcapsule; vinylidene chloride copolymer thermoexpandable microcapsule

IT Fatty acids, uses

RL: USES (Uses)

(suspension-polymerization of monomers in presence of, for manufacture of microcapsules containing **volatile** solvent with small particle size and high thermal expansion rate)

IT Polymers, uses

RL: USES (Uses)

(thermoexpandable microcapsules, containing **volatile** solvent, with small particle size and high expansion rate)

IT **Esters**, uses

RL: USES (Uses)

(fatty, of **polyols**, suspension-polymerization of monomers in presence of, for manufacture of microcapsules containing **volatile** solvent with small particle size and high thermal expansion rate)

IT Alcohols, uses

Amides, uses

Amines, uses

RL: USES (Uses)

(long-chain, suspension-polymerization of monomers in presence of, for manufacture of microcapsules containing **volatile** solvent with small particle

size and high thermal expansion rate)

IT Encapsulation  
(micro-, of **volatile** solvent by polymers in presence of  
comps. having hydrophilic group and long hydrocarbon chain)

IT Capsules  
(micro-, thermoexpandable polymeric, containing **volatile** solvent,  
with small particle size and high expansion rate)

IT Polymerization  
(suspension, of monomers in presence of **volatile** solvents and  
comps. having hydrophilic group and long hydrocarbon chain)

IT 143-07-7, Lauric acid, uses 29063-28-3, Octanol  
RL: USES (Uses)  
(suspension-polymerization of monomers in presence of, for manufacture of  
microcapsules containing **volatile** solvent with small particle  
size and high thermal expansion rate)

IT 25214-39-5, Acrylonitrile-methyl **methacrylate**-vinylidene  
chloride copolymer 30396-85-1, Acrylonitrile-methyl **methacrylate**  
copolymer  
RL: USES (Uses)  
(thermoexpandable microcapsules, containing **volatile** solvent,  
with small particle size and high expansion rate)

L133 ANSWER 12 OF 52 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1991:208523 CAPLUS

DOCUMENT NUMBER: 114:208523

TITLE: Production of homogeneous modified copolymers of  
ethylene and  $\alpha, \beta$ -unsaturated carboxylic  
acids or esters

INVENTOR(S): McKinney, Osborne K.; Eversdyk, David A.; Rowland,  
Michael E.

PATENT ASSIGNEE(S): Dow Chemical Co., USA

SOURCE: U.S., 9 pp. Cont.-in-part of U.S. Ser. No. 44,865,  
abandoned.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4988781	A	19910129	US 1989-316257	19890227
CA 2077664	AA	19920726	CA 1991-2077664	19910125
CA 2077664	C	20030318		
WO 9213013	A1	19920806	WO 1991-US532	19910125
W: AU, CA, FI, JP, KR				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
AU 9173224	A1	19920827	AU 1991-73224	19910125
AU 661456	B2	19950727		
EP 521876	A1	19930113	EP 1991-904626	19910125
EP 521876	B1	20000816		
R: BE, DE, ES, FR, GB, IT, NL, SE				
JP 06509120	T2	19941013	JP 1991-504858	19910125
JP 3194231	B2	20010730		
ES 2148147	T3	20001016	ES 1991-904626	19910125
US 5384373	A	19950124	US 1994-245517	19940518
PRIORITY APPLN. INFO.:				
			US 1987-44865	B2 19870430
			US 1989-316257	A 19890227
			US 1990-591580	B1 19901002
			EP 1991-904626	A 19910125

WO 1991-US532	A 19910125
US 1991-814239	B1 19911223
US 1992-952484	B1 19920928
US 1993-65510	B1 19930520

ED Entered STN: 31 May 1991

AB High-mol.-weight homogeneous random copolymers (melt-flow rate 0.1-300 g/10 min, ASTM D-1238) with reduced long-chain branching, useful for extrusion, blown film molding, and coating, comprise 65-97 weight% ethylene and 1-35 weight% of  $\geq 1$  of  $\alpha, \beta$ -unsatd. carboxylic acid and alkyl (meth)acrylate and are prepared in a constant environment, under steady state conditions in a single-phase reaction mixture in presence of minor amts. of  $\geq 1$  telogenic modifiers, under the influence of a radical initiator. The reaction is performed a stirred autoclave operated continuously at unreacted gas recycle rate sufficient to give high-mol.-weight copolymer as monomers, telogen(s), and initiator are fed and product is withdrawn. Temperature and pressure are increased above the phase boundary between 2-phase and single-phase generation and characterized by either (a) a temperature lower than or (b) a pressure higher than that required with the telogen, and the amts. of telogen(s) and mol.weight are controlled by telogen(s) feed rate, unreacted gas recycle rate, or both. Thus, a 6.5:93.5 acrylic acid-ethylene copolymer (I) (melt index 6.5 g/10 min) was prepared in isobutane (1.93%) at 5500-6500 psi above (i.e., 1500-2500 psi) and at .apprx.0-10° above its corresponding phase boundary. I had narrow mol.weight distribution (5.9) and reduced long-chain branching (intrinsic viscosity 3.070 dL/mg). Extrusion coating at 289° melt temperature and 85 rpm screw speed gave 3.0 oxidative gels/345 web ft. and high drawdown speed (i.e., a thickness of 0.70 mils).

IC ICM C08F002-38

ICS C08F210-00

INCL 526068000

CC 37-3 (Plastics Manufacture and Processing)

Section cross-reference(s): 42

IT Alcohols, uses and miscellaneous

Aldehydes, uses and miscellaneous

Alkanes, uses and miscellaneous

Alkenes, uses and miscellaneous

Amides, uses and miscellaneous

**Amines, uses and miscellaneous**

Anhydrides

Aromatic hydrocarbons, uses and miscellaneous

**Esters, uses and miscellaneous****Ethers, uses and miscellaneous**

Ketones, uses and miscellaneous

Nitriles, uses and miscellaneous

Sulfides, uses and miscellaneous

Sulfoxides

RL: **USES (Uses)**

(telogens, manufacture of ethylene-unsatd. carboxylic acid (ester) polymers in presence of, for improved homogeneity)

L133 ANSWER 13 OF 52 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1992:196410 CAPLUS

DOCUMENT NUMBER: 116:196410

TITLE: Curable polysulfide polymer compositions

INVENTOR(S): Okajima, Mitsuhiro; Sakae, Kazuhisa

PATENT ASSIGNEE(S): Toray Thiokol Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03294356	A2	19911225	JP 1990-97377	19900412
JP 2539279	B2	19961002		

PRIORITY APPLN. INFO.: JP 1990-97377 19900412

ED Entered STN: 16 May 1992

AB The title compns., curable at high temperature and useful for sealants and adhesives, comprise 100 parts polysulfide polymers or mixts. of  $\geq 5\%$  polysulfide polymers and  $\leq 95\%$  mercapto-terminated polyethers containing (R1O)n (R1 = C2-4 alkylene; n = 6-200) and disulfide linkage with S/mercapto  $\geq 1.06$ , 1-50 parts oxidizing agents, and 0.1-50 parts of  $\geq 1$  of C:C-containing compds. (e.g., unsatd. carboxylic acids, unsatd. esters, and unsatd. amines), N-containing heterocyclic compds., aromatic amines, phosphonic acid esters, hydrogenphosphonic acid esters, and thioether-based antioxidants. Thus, propylene glycol-propylene oxide adduct with OH value 162 was successively treated with epichlorohydrin and NaHS to give a liquid mercapto-terminated disulfide linkage-containing polymer, which was mixed with an equal amount of Thiokol LP 55 (polythioether). Al sheets were bonded with a composition containing the polymer mixture, PbO<sub>2</sub>, oleyl oleate, plasticizers, and fillers and aged at 50° for 7 days and also addnl. at 90° for 14 days to give a specimen with 50% modulus 1.1 kg/cm<sup>2</sup> and elongation at break 680% after the first aging and 3.3 kg/cm<sup>2</sup> and 370% after the second aging vs. 2.3, 220. 5.0, and 130, resp., for a control without oleyl oleate.

IC ICM C08L081-02

ICS C08K003-20; C08K005-09; C08K005-10; C08K005-14; C08K005-16;  
C08K005-41; C08K005-5333

CC 42-11 (Coatings, Inks, and Related Products)

Section cross-reference(s): 38

IT Amines, uses

Carboxylic acids, uses

Esters, uses

RL: USES (Uses)

(unsatd., polysulfide polymer compns. containing oxidizing agents and, curable, for adhesives and sealants)

L133 ANSWER 14 OF 52 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1947:807 CAPLUS

DOCUMENT NUMBER: 41:807

ORIGINAL REFERENCE NO.: 41:152h-i,153a

TITLE: Volatile esters of hydroxycarboxylic acids

INVENTOR(S): Filachione, Edward M.; Fisher, Charles H.

PATENT ASSIGNEE(S): U.S. Dept. Agr.

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2405646		19460813	US 1945-596252	19450528

ED Entered STN: 22 Apr 2001

AB MeCH(OH)CO<sub>2</sub>H (I) (330 g. of 81.7%), 92 g. C<sub>3</sub>H<sub>5</sub>(OH)<sub>3</sub>, and 0.75 ml. concentrated H<sub>2</sub>SO<sub>4</sub> are heated on a water bath at 40 mm. for 3 hrs., giving 116 g. H<sub>2</sub>O and 307 g. condensation product (pale yellow viscous liquid); 101 g. and

0.25 ml. concentrated H<sub>2</sub>SO<sub>4</sub> at 100° are treated with MeOH vapor at the rate of 8 ml./min. for 2.25 hrs., giving 90% MeCH(OH)CO<sub>2</sub>Me, b<sub>16</sub> 48-50°; in another method, 220 g. 81.7% I, 62 g. (CH<sub>2</sub>)<sub>2</sub>(OH)<sub>2</sub>, and 100 ml. CCl<sub>4</sub> are refluxed 6 hrs. and the condensation product is treated with MeOH vapor. The recovery of C<sub>3</sub>H<sub>5</sub>(OH)<sub>3</sub> is 71%, of C<sub>2</sub>H<sub>4</sub>(OH)<sub>2</sub>, 92%. The ester may also be prepared from polylactic acid and MeOH vapors. The methallyl ester can be prepared in a similar manner. Various alcs. and H<sub>2</sub>O acids may be used in the reaction. In continuous operation, a column or tower, packed or unpacked, or a tower containing bubble caps or plates, can be used.

CC 10 (Organic Chemistry)  
IT **Esters**  
(of **hydroxy** acids)  
IT 79-41-4, **Methacrylic** acid  
(manufacture of)

L133 ANSWER 15 OF 52 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN DUPLICATE 2  
ACCESSION NUMBER: 1987-104199 [15] WPIX  
DOC. NO. NON-CPI: N1987-078160  
DOC. NO. CPI: C1987-043230  
TITLE: Back-flow preventative compsn. for aqueous ink ball point pen  
- contains low volatile, liquid hydrocarbon, gelling agent,  
glycerine fatty acid ester and/or polyethylene glycol  
acid ester etc..  
DERWENT CLASS: A84 E17 G02 P77  
PATENT ASSIGNEE(S): (PENL) PENTEL KK  
COUNTRY COUNT: 1  
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN	IPC
JP 62050379	A	19870305	(198715)*		4		
JP 06015277	B2	19940302	(199412)		3	B43K007-00	

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 62050379	A	JP 1985-191203	19850830
JP 06015277	B2	JP 1985-191203	19850830

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
JP 06015277	B2 Based on	JP 62050379

PRIORITY APPLN. INFO: JP 1985-191203 19850830

INT. PATENT CLASSIF.: B43K007-00; C09K003-00

## BASIC ABSTRACT:

JP 62050379 A UPAB: 19930922  
Compsn. is useful for a water-colour ballpoint pen having a housing tube filled with a water-colour ink with a viscosity of 50-2000 cps at 25 deg.C. The ink back-flow-out preventive compsn. comprises a lower-**volatility** or non-**volatile** organic liquid hydrocarbon as main ingredient, a gelling agent, a glycerin fatty acid ester and/or a polyethylene **glycol** fatty acid **ester**, and poly-alkyl



**methacrylate.**

Pref. the low volatility or the non-volatile organic liquid is polybutene, liquid paraffin, etc. The gelling agent is fine-powdery silica, hydrogenated castor oil types, etc. The glycerin fatty acid ester and/or a polyethylene glycol fatty acid ester is glyceryl dioleate, glyceryl monoisostearate, polyethylene glycol distearate, etc.

ADVANTAGE - The compsn. which is located within the ink housing tube behind the ink, has high follow-up property without adhesion to the tube while the ink is consumed, and the surface of the ink lowers.

0/0

FILE SEGMENT: CPI GMPI  
FIELD AVAILABILITY: AB; DCN  
MANUAL CODES: CPI: A04-F06E; A10-E07; A12-D05B; E10-E04G; E10-E04K;  
E10-G02G; E31-P03; G02-A04A

L133 ANSWER 16 OF 52 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN  
ACCESSION NUMBER: 2005-217904 [23] WPIX  
DOC. NO. NON-CPI: N2005-180163  
DOC. NO. CPI: C2005-069886  
TITLE: Water paint composition for seamless metal can outer surface, contains metal oxide coated silicon dioxide flakes and color flip flop pigment as pigment component, and aqueous resin and amino resin as resin-binder component.  
DERWENT CLASS: A14 A82 A92 G02 P42 Q32  
PATENT ASSIGNEE(S): (DNIN) DAINIPPON INK & CHEM INC; (TOXO) TOYO SEIKAN KAISHA LTD  
COUNTRY COUNT: 1  
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN	IPC
JP 2005060509	A	20050310	(200523)*		13	C09D133-26	

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 2005060509	A	JP 2003-291911	20030812

PRIORITY APPLN. INFO: JP 2003-291911 20030812  
INT. PATENT CLASSIF.:

MAIN: C09D133-26  
SECONDARY: B05D007-14; B05D007-24; B65D008-00; C08G012-40;  
C09C001-28; C09C003-06; C09C003-12; C09D005-29;  
C09D133-06; C09D161-22

## BASIC ABSTRACT:

JP2005060509 A UPAB: 20050411

NOVELTY - A water paint composition contains pigment component containing metal oxide coated silicon dioxide flakes and color flip flop pigment (A), and resin-binder component (B). Component (B) contains aqueous resin and amino resin having reaction product of formaldehyde, 1-4C alcohol and amino compound having active hydrogen. Pigment (A) is surface treated with silane coupling agent and zirconium oxide.

DETAILED DESCRIPTION - A water paint composition contains a pigment component (A) and a resin-binder component (B). Component (A) contains metal oxide coated silicon dioxide flakes and a color flip flop pigment surface treated with silane coupling agent and zirconium oxide. Component (B) contains an aqueous resin (P) and an amino resin (Q) having reaction

product of formaldehyde, 1-4C alcohol and an amino compound having active hydrogen. Resin (P) is formed by copolymerizing alpha, beta -mono ~~ethylenically unsaturated carboxylic acid, N-alkoxy methyl (meth)acryl~~ amide containing 1-4C alkoxy group, and aromatic vinyl monomer or alkyl (meth)acrylate. Resin (Q) has one or more imino group per structural unit of amino compound. An INDEPENDENT CLAIM is included for seamless metal can, which has dry-curing coat of water paint composition, formed on outer surface of metal can side wall.

USE - For outer surface of seamless metal can (claimed) such as deionized can, used for storing foodstuffs, drinks and cosmetics, and for motor vehicle component.

ADVANTAGE - The water paint composition provides eco-friendly seamless metal can having improved design property, workability, retort processing resistance and color flip flop property.

Dwg.0/0

FILE SEGMENT: CPI GMPI

FIELD AVAILABILITY: AB

MANUAL CODES: CPI: A04-C01; A04-D04A1; A04-F01A1; A05-B01; A07-A04B;  
A12-B04C; A12-B04D; G02-A02C; **G02-A02C4**;  
**G02-A02D3**; G02-A02D4; G02-A02F

TECH UPTX: 20050411

TECHNOLOGY FOCUS - INORGANIC CHEMISTRY - Preferred Component: The metal oxide coated on silicon dioxide flakes, is tin dioxide, titanium dioxide and/or iron oxide.

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Component: The metal oxide coated on silicon dioxide flakes, is tin dioxide, titanium dioxide and/or iron oxide.

TECHNOLOGY FOCUS - POLYMERS - Preferred Composition: The water paint composition contains pigment component (in mass parts) (1-30) with respect to resin binder component (100). Preferred Property: The dry paint film amount of water paint composition layer formed on metal can outer surface, is 30-70 mg/100 cm<sup>2</sup>. Preferred Component: The metal can further has a printing layer.

L133 ANSWER 17 OF 52 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN

ACCESSION NUMBER: 2005-068359 [08] WPIX

DOC. NO. CPI: C2005-023977

TITLE: Aqueous acrylic-type emulsion for paint resin, is obtained by emulsion-polymerizing radical polymerizable acrylic-type and acrylamide-type monomers, in aqueous medium, in presence of specific surfactant, and has preset particle diameter.

DERWENT CLASS: A14 A82 G02

PATENT ASSIGNEE(S): (TOXW) TOYO INK MFG CO LTD

COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN	IPC
JP 2004292749	A	20041021	(200508)*		9	C08F002-24	

#### APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 2004292749	A	JP 2003-90151	20030328

PRIORITY APPLN. INFO: JP 2003-90151 20030328  
 INT. PATENT CLASSIF.:

MAIN: C08F002-24  
 SECONDARY: C08F020-54; C09D005-02; C09D007-12; C09D133-00;  
 C09D133-24

## BASIC ABSTRACT:

JP2004292749 A UPAB: 20050202

NOVELTY - An aqueous acrylic-type emulsion is obtained by emulsion-polymerizing a radical polymerizable acrylic-type monomer and an acrylamide-type monomer, in an aqueous medium, in presence of non-ionic surfactant/anionic surfactant. The weight ratio of non-ionic surfactant and anionic surfactant is 2/8-8/2. The aqueous acrylic-type emulsion has particle diameter of 100-500 nm.

USE - For construction paint resin.

ADVANTAGE - The aqueous acryl emulsion has excellent chemical stability, water resistance and polymerization stability.

Dwg.0/0

FILE SEGMENT: CPI

FIELD AVAILABILITY: AB

MANUAL CODES: CPI: A04-D04A1; A04-F01A1; A08-S05; A10-B03; A12-B01E;  
 G02-A02C; G02-A02C4

TECH UPTX: 20050202

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Surfactant: The non-ionic surfactant is a reactive surface-active agent.

TECHNOLOGY FOCUS - POLYMERS - Preferred Composition: The amount of acrylamide-type monomer is 0.1-5 wt.%, with respect to radical polymerizable monomers (100 wt.%). The acrylamide-type monomer contains acrylamide and diacetone acrylamide, in weight ratio of 1/9-9/1.

L133 ANSWER 18 OF 52 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN

ACCESSION NUMBER: 2002-659418 [71] WPIX

DOC. NO. CPI: C2002-185469

TITLE: Crosslinker for heat cured paint useful for production of stoving enamels and for automobile finishing comprises aliphatic and/or cycloaliphatic polyisocyanate(s), secondary 3-aminopropyltrialkoxysilane(s) and blocking agent(s).

DERWENT CLASS: A14 A23 A25 A82 E19 G02

INVENTOR(S): LOMOLDER, R; PLOGMANN, F; SPEIER, P; SPYROU, E; WENNING, A; LOMOELDER, R

PATENT ASSIGNEE(S): (DEGS) DEGUSSA AG; (LOMO-I) LOMOELDER R; (PLOG-I) PLOGMANN F; (SPEI-I) SPEIER P; (SPYR-I) SPYROU E; (WENN-I) WENNING A

COUNTRY COUNT: 30

## PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN	IPC
EP 1211273	A1	20020605	(200271)*	GE	11	C08G018-80	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR							
CA 2364051	A1	20020604	(200271)	EN		C08G077-14	
DE 10060327	A1	20020606	(200271)			C08K005-5415	
JP 2002180001	A	20020626	(200271)		8	C09D175-04	
US 2002103286	A1	20020801	(200271)			C08K003-34	
MX 2001011149	A1	20040501	(200481)			C08G018-80	
US 6855792	B2	20050215	(200513)			C08G018-80	

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 1211273	A1	EP 2001-124479	20011012
CA 2364051	A1	CA 2001-2364051	20011130
DE 10060327	A1	DE 2000-10060327	20001204
JP 2002180001	A	JP 2001-369140	20011203
US 2002103286	A1	US 2001-772943	20010131
MX 2001011149	A1	MX 2001-11149	20011101
US 6855792	B2	US 2001-772943	20010131

PRIORITY APPLN. INFO: DE 2000-10060327 20001204

INT. PATENT CLASSIF.:

MAIN: C08G018-80; C08G077-14; C08K003-34; C08K005-5415;  
C09D175-04

SECONDARY: C07F007-18; C08F220-18; C08G018-22; C08G018-38;  
C08G018-71; C08G018-79; C08K003-00; C08K005-205;  
C09D133-10; C09D175-06

BASIC ABSTRACT:

EP 1211273 A UPAB: 20021105

NOVELTY - New crosslinker for heat cured paints comprises (A) at least one aliphatic and/or cycloaliphatic polyisocyanate with 2-8 NCO functionality, (B) at least one secondary 3-aminopropyltrialkoxysilane, (C) at least one blocking agent.

DETAILED DESCRIPTION - New crosslinker for heat cured paints comprises:

(A) at least one aliphatic and/or cycloaliphatic polyisocyanate with 2-8 NCO functionality;

(B) at least one secondary 3-aminopropyltrialkoxysilane, in which 1-90% mole% of original free isocyanate groups of polyisocyanate are reacted;

(C) at least one blocking agent, where 10-99 mole% of original isocyanate groups are reacted, and molar portion of reacted isocyanate groups adds up to 100%.

An INDEPENDENT CLAIM is included for a heat cured paint containing at least one polyol component and a crosslinker as above.

USE - The crosslinker and heat curable paints are useful in production of stoving enamels and for automobile lacquers.

ADVANTAGE - Surprisingly the use of blocking agent increases solubility. The cured enamels have increased scratch resistance.

Dwg.0/0

FILE SEGMENT: CPI

FIELD AVAILABILITY: AB; GI; DCN

MANUAL CODES: CPI: A08-C01; A08-D01; A12-T05; E05-E01; E05-E02D;  
E07-D06; E07-D08; E07-D13C; E10-A14B; E10-B04;  
E10-E02E1; E10-E02F1; E10-E02U; E10-E04L;  
**E10-G02G2; E10-G02H2;**  
**G02-A02C2; G02-A02E;**  
**G02-A02H; G02-A05**

TECH UPTX: 20021105

TECHNOLOGY FOCUS - POLYMERS - Preferred Components: Polyisocyanate of formula (A) is based on diisocyanates. Component A is obtained by trimerization, dimerization, or urethane-, biuret- or allophane formation, alone or in mixture. Component A contains mixtures of polyisocyanates and diisocyanate monomers. The polyisocyanate has a lengthened or branched chain. Component B is a secondary 3-aminopropyltrialkoxysilane of formula (I):

R = 1-10C alkyl, isoalkyl, tert-alkyl, cycloalkyl or aryl;

R1 = 1-8C alkyl or isoalkyl.

The crosslinker contains the following silanes, alone or in mixture: n-butyl-3-aminopropyltriethoxysilane, n-butyl-3-aminopropyltri-i-propoxysilane, methyl-3-aminopropyltriethoxysilane, methyl-3-aminopropyltri-i-propoxysilane, phenyl-3-aminopropyltriethoxysilane, phenyl-3-aminopropyltrimethoxysilane, phenyl-3-aminopropyltri-i-propoxysilane, cyclo-3-aminopropyltriethoxysilane, cyclohexyl-3-aminopropyltrimethoxysilane, cyclo-3-aminopropyltri-i-propoxysilane.

In equation (I) above R is a residue of structure (Ia):

R2 = H, 1-8C alkyl, COO2R1;

R3 = H, methyl;

R4 = COO2R1, CN.

The blocking agent C is ketoxime, 1,2,4-triazole, or substituted azole, pyrazole or substituted pyrazole, 3,5-dimethylpyrazole, epsilon-caprolactam, malonic acid ester or acetic acid ester, optionally substituted phenol, secondary amine, 1-10C monohydric alcohol, or a mixture of these. The heat cured paint contains as polyol components OH group containing resins selected from: OH group containing (meth)acryl copolymers, saturated polyester polyols, polycarbonate diols, polyetherpolyols or urethane- and ester group containing polyols or their mixtures. The heat cured paint contains as OH group containing resin (meth)acryl copolymer of number average molecular weight 2000 to 20,000 g/mole, glass transition temperature -40 to 60 degrees C, OH group content 30-250 mgKOH/g, relative to the non-volatile constituents. The OH containing resin is a polyester polyol of mean functionality 2.0-4.0 and number average molecular weight 500-10,000 g/mole. The ratio of polyol component to crosslinker relative to the non-volatile parts is 95:5 to 50:50. The heat cured paint contains additives e.g. stabilizers, light protection agents, catalysts, processing aids, rheological aids, microgels, pigments and/or pyrogenic silicon dioxide. The catalysts are organic Sn(IV), Sn(II), Zn, or Bi compounds or tert amine (PUR catalysts) in amount 0.1-2 wt.%, or sulfonic acid based catalysts in latent form as amine neutralized component or as covalent adducts of epoxide containing compounds, in amount 0.1-7 wt.%, or 0.1-2 wt.% PUR catalysts or 0.1-7 wt.% sulfonic acid based catalysts, relative to the non-volatile organic components. The neat cured paint contains solvent.

L133 ANSWER 19 OF 52 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN  
 ACCESSION NUMBER: 2001-601123 [68] WPIX  
 CROSS REFERENCE: 2000-091059 [08]; 2001-569927 [54]  
 DOC. NO. NON-CPI: N2001-448353  
 DOC. NO. CPI: C2001-178152  
 TITLE: Ink composition for inkjet printing and marking pens, comprises water, acid dye, monovalent salt, polyquaternary amine compound and optional nonionic or cationic surfactant, and is free of organic solvents.  
 DERWENT CLASS: A97 E19 E37 G02 T04  
 INVENTOR(S): COLT, R L; CROUCHER, M D; GUNDLACH, K B; SANCHEZ, L A; SWEENEY, M A  
 PATENT ASSIGNEE(S): (XERO) XEROX CORP  
 COUNTRY COUNT: 1  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN	IPC
US 6258873	B1	20010710	(200168)*		15	C09D011-00	

#### APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
-----------	------	-------------	------

US 6258873	B1 CIP of	US 1998-46852	19980324
	CIP of	US 1998-47097	19980324
		US 1998-106621	19980629

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
US 6258873	B1 CIP of	US 6001899
	CIP of	US 6054505

PRIORITY APPLN. INFO: US 1998-106621 19980629; US  
 1998-46852 19980324; US  
 1998-47097 19980324

## INT. PATENT CLASSIF.:

MAIN: C09D011-00  
 SECONDARY: C08F226-10; C09D011-02; C09D011-10;  
 C09D139-04

## BASIC ABSTRACT:

US 6258873 B UPAB: 20011121  
 NOVELTY - Ink composition for inkjet printing comprises water, an acid dye, a monovalent salt, a polyquaternary amine compound and an optional nonionic or cationic surfactant. The amine compound is polydiallyl ammonium compound, polyquaternized polyvinylamine, polyquaternized polyallylamine and preset copolymers. The ink is free of organic solvents.

DETAILED DESCRIPTION - The composition comprises water, an acid dye, a monovalent salt, a polyquaternary amine compound and an optional nonionic or cationic surfactant. The amine compound is polydiallyl ammonium compound, polyquaternized polyvinylamine, polyquaternized polyallylamine, epichlorohydrin-amine copolymer, cationic amido amine copolymer, copolymer of vinyl pyrrolidinone and a vinyl imidazolium salt containing at least about 50 % vinyl imidazolium salt monomers. The ink is free of organic solvents. An INDEPENDENT CLAIM is also included for the application process of the ink composition. The ink composition is applied onto a substrate, in an imagewise pattern.

USE - For inkjet printing and marking pens.

ADVANTAGE - The ink composition is free of organic liquids and volatile compounds. The ink composition is ecologically friendly and is nontoxic. The ink exhibits smooth jettability in inkjet printers and has desirable penetrating characteristics with respect to printing substrates such as paper. The ink has reduced intercolor bleed when different colored inks are printed adjacent to each other or on top of each other. The ink generates images having water fastness and smear-resistance. The ink composition has indelible characteristics.

Dwg.0/0

FILE SEGMENT: CPI EPI  
 FIELD AVAILABILITY: AB; GI; DCN  
 MANUAL CODES: CPI: A12-W07D; E06-D07; E07-D09A; E10-A22A; E10-A22E;  
 E10-A22G; E10-C04J2; E10-C04L1; E10-E04J;  
 E10-H01D; E31-C; E32-A04; E33; E34;  
 G02-A04A; G05-F03  
 EPI: T04-G02C  
 TECH UPTX: 20011121

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Composition: The ink contains 0.5-15 weight% (wt.%) of dye, 1-15 wt.% of monovalent salt, 0.01-50 wt.%, preferably 1-10 wt.% of polyquaternary amine, 0.1-5 wt.% of surfactant or 0.1-5 wt.% of viscosity building component. The washing composition contains 0.1-10 wt.% of surfactant, 1-25 wt.% of monovalent salt, 0.30 wt.% of urea or 0.1-5 wt.% of viscosity building component. The

dianionic surfactant has alkali metal counterions.

Preferred Salt: The monovalent salt contains anions such as chloride, bromide, iodide, carboxylate, sulfate, acetate, propionate, hexane sulfonate, carbonate, formate, nitrate, perchlorate, acetylacetonate and squarate. The salt contains cations such as alkali metal ions, alkaline earth ions, quaternary amine ions, ~~ammonium ions~~,  $N(CH_3)_4^+$ ,  $H_3NCH_2CH_2NH_3^{2+}$ ,  $(H_3C)_3NCH_2CH_2N(CH_3)_3^{2+}$ , quaternized 1,4-diazabicyclo (2.2.2)octane, imidazolium or choline of formula (I).

R = 12C alkyl group;

x,y = 0,1 or 2 representing the number of ethoxy groups

x+y=2.

Preferred Amine: The polyquaternary amine is polydiallyl ammonium compound and polyquaternized polyvinylamine. Preferred Surfactant: The surfactant is octylphenoxy polyethoxy ethanol, non-ionic ether of ethylene oxide and propylene oxide, acetylenic diol, trimethyl nonylpolyethylene-glycol ether, cetyl trimethyl ammonium bromide. The

dianionic surfactant is a linear alkyl diphenyl oxide disulfonate such as sodium n-decyl diphenyl oxide disulfonate, sodium dodecyl diphenyl oxide disulfonate and/or sodium hexadecyl diphenol oxide disulfonate.

Preferred Component: The viscosity building component is starch, hydroxyalkylstarch, gelatin, alkyl cellulose and aryl cellulose, hydroxy alkyl cellulose, alkyl hydroxy alkyl cellulose, hydroxy dialkyl cellulose, dihydroxyalkyl cellulose, hydroxy alkyl hydroxy alkyl cellulose, halodeoxycellulose, amino deoxycellulose, dialkyl amino alkyl cellulose, carboxyalkyl cellulose, carboxyalkyl dextran, dialkyl aminoalkyl dextran, amino dextran, gum arabic, carrageenan, karaya gum, xanthan gum, chitosan, carboxyalkyl hydroxyalkyl guar, n-carboxyalkyl chitin and agar-agar.

Preferred Process: The ink is applied to the substrate by introducing the ink composition into an inkjet printing apparatus and causing droplets of ink to be ejected in an imagewise pattern onto the substrate. A thermal inkjet process in which the ink in the nozzle is selectively heated in an imagewise pattern, or an acoustic inkjet process is performed.

Alternately, the ink is applied to the substrate by introducing the ink composition into a marking pen and causing marks to be made on the substrate, in an imagewise pattern. After forming the ink image, the substrate is washed with a washing composition comprising water and dianionic surfactant.

L133 ANSWER 20 OF 52 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN  
 ACCESSION NUMBER: 1991-087304 [12] WPIX  
 DOC. NO. NON-CPI: N1991-067427  
 DOC. NO. CPI: C1991-037138  
 TITLE: Insulation coating compsn. - comprises aqueous dispersion of (meth)acrylate polymer modified with ethylenically unsatd. carboxylic acid and opt. vinyl comonomer.  
 DERWENT CLASS: A82 G02 M13 X12  
 INVENTOR(S): MAEDA, Y; MASUHARA, K; SAKAKURA, A; TANAKA, K  
 PATENT ASSIGNEE(S): (NISI) NISSHIN STEEL CO LTD; (TOYM) TOYOBO KK  
 COUNTRY COUNT: 15  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN	IPC
WO 9102828	A	19910307	(199112)*		40		
RW: AT BE CH DE DK ES FR GB IT LU NL SE							
W: KR US							
JP 03074418	A	19910329	(199119)				
EP 438601	A	19910731	(199131)				
R: DE FR GB IT							
JP 03166384	A	19910718	(199135)				

EP 438601 B1 19941123 (199445) EN 21 C23C022-00  
 R: DE FR GB IT  
 DE 69014291 E 19950105 (199506) C23C022-00  
 US 5407990 A 19950418 (199521) 12 C08K003-10  
 EP 438601 A4 19920930 (199523)  
 JP 2769730 B2 19980625 (199830) 9 C23C022-00  
 JP 2780049 B2 19980723 (199834) 7 C08F220-12

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 03074418	A	JP 1989-207872	19890814
EP 438601	A	EP 1990-912036	19900813
JP 03166384	A	JP 1989-303159	19891124
EP 438601	B1	EP 1990-912036	19900813
		WO 1990-JP1029	19900813
DE 69014291	E	DE 1990-614291	19900813
		EP 1990-912036	19900813
		WO 1990-JP1029	19900813
US 5407990	A	WO 1990-JP1029	19900813
		US 1991-663959	19910320
EP 438601	A4	EP 1990-912036	
JP 2769730	B2	JP 1989-303159	19891124
JP 2780049	B2	JP 1989-207872	19890814

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 438601	B1 Based on	WO 9102828
DE 69014291	E Based on	EP 438601
	Based on	WO 9102828
US 5407990	A Based on	WO 9102828
JP 2769730	B2 Previous Publ.	JP 03166384
JP 2780049	B2 Previous Publ.	JP 03074418

PRIORITY APPLN. INFO: JP 1989-207872 19890814; JP  
 1989-303159 19891124

REFERENCE PATENTS: DE 2546190; GB 1524997; JP 52048586; JP 55003429; JP  
 60036476; JP 62100561; US 4032675; EP 322984

INT. PATENT CLASSIF.: C23C022-00

MAIN: C08F220-12; C08K003-10; C23C022-00

SECONDARY: C08L033-06; C21D009-46; H01F001-16; H01F001-18

INDEX: C08F212:08; C08F220-12; C08F220:06

## BASIC ABSTRACT:

WO 9102828 A UPAB: 19930928

Coating compsn. comprises an aqueous dispersion of a (meth)acrylate polymer, modified with an ethylenically unsatd. carboxylic acid as a comonomer and other vinyl cpd(s). as an opt. comonomer, or further an aqueous dispersion prepared by adding a powdered methacrylate polymer to the above modified polymer.

USE/ADVANTAGE - These compsns. are low foaming and excellent in applicability, and give a coating excellent in various properties. Compsn. containing powdered methacrylate polymer is excellent in weldability, used partic. for high quality prods. of electric sheets.

0/0

FILE SEGMENT: CPI EPI

FIELD AVAILABILITY: AB

MANUAL CODES: CPI: A04-F01A1; A07-B02; A07-B03; A12-B01E; A12-B01G;



A12-E01; G02-A02C; G02-A02C4; G02-A05B;  
M13-H05

EPI: X12-D01X

ABEQ EP 438601 B UPAB: 19950102

A compsn. for forming insulating films on electrical steel sheets comprising an aq. emulsion of a carboxylic acid component contg. polymer (A) which is stably dispersed in an aq. medium, and having a minimum filming temp. of 40-70 deg.C and an expandability of 10 ml. or less, the carboxylic acid component-contg. polymer comprising 56-97% by wt. of an alkyl **methacrylate** ester component and/or an alkyl acrylate ester, 3-7% by wt. of an ethylenic unsatd. carboxylic acid component and 0-37% by wt. of a vinylic cpd. other than the alkyl **methacrylate** ester, alkyl acrylate **ester** and ethylenic **unsatd.** carboxylic acid, and having a mean particle size of 0.5 micron or less, the aq. emulsion (A) of a carboxylic acid component-contg. polymer being mixed with an aq. soln. of a film-forming inorganic substance contg. a chromate as a main component at a ratio of 15-120 pts. by wt. of a **nonvolatile** matter content of the aq. emulsion per 100 pts. by wt. of the chromate content in the aq. soln., calculated as CrO3.

Dwg.0/0

ABEQ US 5407990 A UPAB: 19950602

A compsn. for forming insulating films on electrical steel sheets comprises an aq. emulsion of a carboxylic acid component-contg. polymer (A) which is stably dispersed in an aq. medium and having a min. filming temp. of 40-70 deg.C and an expandability of 10 ml or less, the component contg. polymer comprising 56-97 wt.% of e.g. alkyl methacrylate esters an alkyl acrylate esters, 3-7 wt.% of an ethylenic unsatd. carboxylic acid and 0-37 wt.% of a vinylic cpd. and having a mean particle size of 0.5 microns or less, the aq. emulsion (A) of a carboxylic acid component-contg. polymer being mixed with an aq. soln. of a film-forming inorganic substance contg. a chromate at a ratio of 15-120 wt. parts of nonvolatile matter content of the aq. emulsion per 100 wt.parts of the chromate content in the aq. soln. calculated as CrO3.

ADVANTAGE - Improved weldability is achieved and high-quality coated steel sheet prods. are provided.

Dwg.0/0

L133 ANSWER 21 OF 52 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN

ACCESSION NUMBER: 1990-211364 [28] WPIX

CROSS REFERENCE: 1990-202546 [27]

DOC. NO. CPI: C1990-091268

TITLE: Preparation of (meth)acrylic ester of poly  
ol - involves flushing with oxygen and loading upper part  
of reaction space with liquid droplets containing inhibitor.

DERWENT CLASS: A14 A41 E19 G02 G03 J01

INVENTOR(S): RITTER, W; SITZ, H D; SPEITKAMP, L; SITZ, H

PATENT ASSIGNEE(S): (HENK) HENKEL KGAA

COUNTRY COUNT: 14

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN	IPC
EP 377156	A	19900711	(199028)*		12		
R: GR							
WO 9007483	A	19900712	(199031)				
RW: GR							
CA 2006432	A	19900624	(199037)				
AU 9049716	A	19910829	(199141)#				
EP 449919	A	19911009	(199141)		17		
R: BE CH DE ES FR GB IT LI NL							

JP 04502459	W	19920507 (199225)	12	C07C069-54
US 5159106	A	19921027 (199246)	9	C07C069-52
EP 449919	B1	19940504 (199418)	GE	17 C07C069-54
R: BE CH DE ES FR GB IT LI NL				
DE 58907626	G	19940609 (199424)		C07C069-54
ES 2053171	T3	19940716 (199430)		C07C069-54
JP 2758717	B2	19980528 (199826)	9	C07C069-54

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 377156	A	EP 1989-123221	19891215
EP 449919	A	EP 1990-900865	19891215
JP 04502459	W	WO 1989-EP1546	19891215
		JP 1990-501465	19891215
US 5159106	A	WO 1989-EP1546	19891215
		US 1991-679073	19910820
EP 449919	B1	WO 1989-EP1546	19891215
		EP 1990-900865	19891215
DE 58907626	G	DE 1989-507626	19891215
		WO 1989-EP1546	19891215
		EP 1990-900865	19891215
ES 2053171	T3	EP 1990-900865	19891215
JP 2758717	B2	WO 1989-EP1546	19891215
		JP 1990-501465	19891215

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
JP 04502459	W Based on	WO 9007483
US 5159106	A Based on	WO 9007483
EP 449919	B1 Based on	WO 9007483
DE 58907626	G Based on	EP 449919
	Based on	WO 9007483
ES 2053171	T3 Based on	EP 449919
JP 2758717	B2 Previous Publ.	JP 04502459
	Based on	WO 9007483

PRIORITY APPLN. INFO: DE 1988-3843843 19881224

REFERENCE PATENTS: US 3988213; DE 1493004; FR 2316253; FR 2358377; US 3899213

## INT. PATENT CLASSIF.:

MAIN: C07C069-52; C07C069-54  
 SECONDARY: B01J027-02; B01J031-02; C07B063-00; C07C067-08;  
 C07C067-48; C07C067-62  
 ADDITIONAL: C07B061-00

## BASIC ABSTRACT:

EP 377156 A UPAB: 19990707

The prepn of (meth)acrylic acid esters of polyols, involves (a) converting the reactants in the presence of acid esterification catalysts, (b) addn to the reaction mixt of polymerisation inhibitors, and (c) flushing the reaction space with a gas stream contg O<sub>2</sub>. The part of the interior of the reaction space filled with the gas phase is loaded with finely divided liq droplets contg the polymerisation inhibitor.

Pref the amt of finely dispersed liq phase contg the inhibitor is such that all the solid surfaces of the interior of the reaction chamber in contact with the gas phase are wetted with a pref continuous liq film

contg inhibitor. Portions of the liq reaction mixt are finely sprayed, batchwise or continuously, into the reaction space, the inner walls of the space are washed with the falling liq film, and this portion is pref combined again with the continuous liq phase. The reaction mixt is liq at reaction temp and (largely) free from solvent and/or azeotropic entraining agents. The polymerisation inhibitor used in the reaction prod is used already as inhibitor in the esterification reaction.

USE/ADVANTAGE - The liq phase is stabilised, the reactor space is protected against polymer deposits, and complex gaseous inhibitor systems are avoided and can be replaced by difficulty **volatile** inhibitors. The same inhibitors is used to protect the reactive liq and the reaction chamber. **(Meth)acrylic esters** of **polyols** are used in lacquers hardened by electron beams, in printing inks, coatings, primers, or moulding and casting compsns hardened by UV, or in anaerobically hardening adhesives.

Dwg.0/0

FILE SEGMENT: CPI  
FIELD AVAILABILITY: AB; DCN  
MANUAL CODES: CPI: A01-B03; A01-C01; A01-D10; A02-C; E10-E04A;  
E10-E04D; **E10-G02B; G02-A02C2;**  
**G02-A02C4; G02-A04A;**  
**G02-A05E; G03-B02D1; N05-E02; N06**

ABEQ US 5159106 A UPAB: 19930928

Polyhydric alcohols **(meth)acrylates** or their ethoxylated derivs. are produced by A) as known reacting **(meth)acrylic** acid and a polyhydric alcohol, pref. e.g. ethylene glycol, dimethylol propane, pentaerythritol, or its alkoxylated, pref. ethoxylated or propoxylated, derivs. in presence of an acidic esterification catalyst and a polymerisation inhibitor (PI) while B) purging the reaction zone with an O2 contg. gas and C) filling a section of the reaction zone with a gas phase charged with finely divided liquid droplets contg. the PI.

Sufficient PI-contg. liquid is pref. present to coat all inner surfaces defining the reaction space with a liquid film contg. PI. The PI is a sterically (un)hindered phenolic cpd. esp. tocopherol and/or di-tert butyl hydroquinone present to 200-10,000 esp. 300-2,000 ppm, referred to reaction mixt. The reaction time does not exceed 10 hr. and is sufficient to result in yields of at least 90%. The reaction product is esp. treated with a decolourising agent.

ADVANTAGE - Polymerisation is effectively prevented in the reaction space and at the surfaces of the reaction zone without use of a gaseous complex PI system.

0/0

L133 ANSWER 22 OF 52 PASCAL COPYRIGHT 2006 INIST-CNRS. ALL RIGHTS RESERVED.  
on STN DUPLICATE 1

ACCESSION NUMBER: 2002-0565305 PASCAL  
COPYRIGHT NOTICE: Copyright .COPYRG. 2002 INIST-CNRS. All rights reserved.  
TITLE (IN ENGLISH): Investigation of the thermal decomposition of poly(2-hydroxypropyl methacrylate)  
AUTHOR: DEMIRELLI Kadir; COSKUN M. Fatih; KAYA Esin; COSKUN Mehmet  
CORPORATE SOURCE: Department of Chemistry, Faculty of Science and Arts, University of Firat, Elazig, Turkey  
SOURCE: Polymer degradation and stability, (2002), 78(2), 333-339, 15 refs.  
ISSN: 0141-3910 CODEN: PDSTDW

DOCUMENT TYPE: Journal  
BIBLIOGRAPHIC LEVEL: Analytic  
COUNTRY: United Kingdom  
LANGUAGE: English  
AVAILABILITY: INIST-18819, 354000104903900160  
ABSTRACT: 2-Hydroxypropyl **methacrylate** (HPMA) was polymerized in the presence of AIBN at 60 °C. The thermal degradation behaviour of poly(HPMA) has been studied using thermogravimetry (TG), the IR examination of the partially degraded polymer, and a single line vacuum system consisting of a degradation tube, with a condenser for product collection and a gas phase IR cell. The cold ring fraction (CRF) was collected at two different temperatures, one of them (CRF.sub.1) is from ambient temperature to 340 °C and the other (CRF.sub.2) in the range 340-450 °C. The **volatile** products of the degradation were trapped at -196 °C (in liquid nitrogen). All fractions of the degradation were investigated by means of IR, <sup>1</sup>H- and <sup>13</sup>C-NMR techniques and the CRFs were also characterized by GC-MS. As major products of the degradation, the monomer, 2-propanal, **methacrylic acid**, 1,2-propandiol, 2-(2-propenyloxy) propyl **methacrylate**, 2-hydroxypropanal, and **hydroxymethyl isopropyl ether** were detected. Degradation mechanism and the origins of the identified products are discussed.

CLASSIFICATION CODE: 001D09D03D; Applied sciences; Physicochemistry of polymers, Macromolecular chemistry, Materials science; Organic polymers

CONTROLLED TERM: Experimental study; Hydroxyethyl methacrylate polymer; Free radical polymerization; Thermal degradation; Thermal stability; Degradation product; Reaction mechanism

BROADER TERM: Thermal properties

L133 ANSWER 23 OF 52 PASCAL COPYRIGHT 2006 INIST-CNRS. ALL RIGHTS RESERVED.  
on STN

ACCESSION NUMBER: 2005-0422538 PASCAL  
COPYRIGHT NOTICE: Copyright .COPYRG. 2005 INIST-CNRS. All rights reserved.

TITLE (IN ENGLISH): Film formation from monodisperse acrylic latices, part 4: the role of coalescing agents in the film formation process

AUTHOR: ZOHREHVAND Shiva; TE NIJENHUIS Klaas  
CORPORATE SOURCE: Laboratory of Polymer Materials and Polymer Engineering, Faculty of Applied Physics, Delft University of Technology, Julianalaan 136, 2628 BL Delft, Netherlands

SOURCE: Colloid and polymer science : (Print), (2005), 283(12), 1305-1312, 46 refs.  
ISSN: 0303-402X CODEN: CPMSB6

DOCUMENT TYPE: Journal  
BIBLIOGRAPHIC LEVEL: Analytic  
COUNTRY: Germany, Federal Republic of  
LANGUAGE: English  
AVAILABILITY: INIST-287, 354000131796770050  
ABSTRACT: The role of coalescing agents in the film formation

process is studied by means of the turbidity technique, i.e., analysis of light transmission and interference. The basic influence of coalescing agents is (a) lowering the minimum film formation temperature of the latex dispersion, (b) increasing the drying time and (c) improvement of **coalescence**.

Application of coalescing agents also causes a change in polymer particle size as coalescing agents made of TEXANOL (2,2,4 trimethyl-1,3 pentanediol monoisobutyrate) and ethylene glycol monobutyl ether (EB) were used. Turbidity is shown to be a better method to optimize the amount of coalescing agent in a film formation process than the usual brass bar.

CLASSIFICATION CODE: 001D09D04H; Applied sciences; Physicochemistry of polymers, Macromolecular chemistry, Materials science; Organic polymers

CONTROLLED TERM: Latex; Monodispersed particle; Methyl **methacrylate** copolymer; Butyl acrylate copolymer; Acrylic acid copolymer; Aqueous dispersion; Film forming properties; Adjuvant; Hydroxyester; Hydroxyether; Concentration effect; Mechanism of action; Film formation; Rewetting; Experimental study; Comparative study

L133 ANSWER 24 OF 52 PASCAL COPYRIGHT 2006 INIST-CNRS. ALL RIGHTS RESERVED.  
on STN

ACCESSION NUMBER: 2005-0018957 PASCAL

COPYRIGHT NOTICE: Copyright .COPYRG. 2005 INIST-CNRS. All rights reserved.

TITLE (IN ENGLISH): Fatty acid-based monomers as styrene replacements for liquid molding resins

AUTHOR: SCALA John J. La; SANDS James M.; ORLICKI Joshua A.; ROBINETTE E. Jason; PALMESE Giuseppe R.

CORPORATE SOURCE: Department of Chemical Engineering, Drexel University, Philadelphia, PA 19104, United States; Army Research Labs, 4600 Deer Creek Loop, Aberdeen Proving Grounds, MD 21005-5069, United States

SOURCE: Polymer : (Guildford), (2004), 45(22), 7729-7737, 32 refs.

ISSN: 0032-3861 CODEN: POLMAG

DOCUMENT TYPE: Journal

BIBLIOGRAPHIC LEVEL: Analytic

COUNTRY: United Kingdom

LANGUAGE: English

AVAILABILITY: INIST-11463, 354000120439570370

ABSTRACT: One method of reducing styrene emissions from vinyl **ester** (VE) and **unsaturated** polyester resins (UPE) is to replace some or all of the styrene with fatty acid-based monomers. **Methacrylated** fatty acid (MFA) monomers are ideal candidates because they are inexpensive, have low **volatilities**, and free-radically polymerize with vinyl ester. The viscosity of VE resins using these fatty acid monomers ranged from 700-2000 cP, which is considerably higher than that of VE/styrene resins (.eqvsim. 100 cP). In addition, the T.sub.g of VE/MFA polymers were only on the order of 80 °C, which is significantly lower than that of VE/styrene polymers. Decreasing the length of the base fatty acid chains from 18 to 12

carbon atoms improved the T.sub.g by 20 °C, while lowering the resin viscosity from .eqvsim.2500 to .eqvsim.1000 cP. Residual unsaturation sites on the fatty acid backbone decreased the cure rate of the resins thereby decreasing polymer properties. Ternary blends of VE, styrene, and fatty acid monomers also effectively improved the flexural, fracture, and thermo-mechanical properties and reduced the resin viscosity to acceptable levels, while using less than 15 wt% styrene, far less than commercial VE resins.

CLASSIFICATION CODE: 001D10A05B; Applied sciences; Polymer technology, Materials science

CONTROLLED TERM: Monomer; Methacrylic acid esters; Chemical synthesis; Monounsaturated fatty acid; Oleic acid; Chemical reactivity; Curing(plastics); Vinyl ester resin; Viscosity; Mechanical properties; Dynamic mechanical properties; Property composition relationship; Experimental study

BROADER TERM: Rheological properties

L133 ANSWER 25 OF 52 PASCAL COPYRIGHT 2006 INIST-CNRS. ALL RIGHTS RESERVED.  
on STN

ACCESSION NUMBER: 1991-0078606 PASCAL

TITLE (IN ENGLISH): Effect of a coalescing aid on polymer diffusion in latex films

AUTHOR: YONGCAI WANG; WINNIK M. A.

CORPORATE SOURCE: Univ. Toronto, erindale coll., dep. chemistry, Toronto ON M5S 1A1, Canada

SOURCE: Macromolecules, (1990), 23(21), 4731-4732, 16 refs.  
ISSN: 0024-9297 CODEN: MAMOBX

DOCUMENT TYPE: Journal

BIBLIOGRAPHIC LEVEL: Analytic

COUNTRY: United States

LANGUAGE: English

AVAILABILITY: INIST-13789, 354000015369790380

ABSTRACT (IN FRENCH): L'etude par fluorescence d'un film de latex de poly(**methacrylate** de butyle) en presence d'un adjuvant filmogene (TEXAWOL) montre que l'adjuvant favorise la formation du film par ses proprietes plastifiantes en augmentant le volume libre du film

CLASSIFICATION CODE: 001D10A06D; Applied sciences; Polymer technology, Materials science

CONTROLLED TERM: Latex; Thin film; Butyl **methacrylate** polymer; Diffusion; Adjuvant; Plasticizer; Ester; Diffusion coefficient; Fluorescence spectrometry; Film forming properties; **Coalescence**

L133 ANSWER 26 OF 52 JAPIO (C) 2006 JPO on STN

ACCESSION NUMBER: 1996-208302 JAPIO

TITLE: RESIN MORTAR COMPOSITION

INVENTOR: NISHIGORI MITSURU; OKUYAMA ATSUYOSHI

PATENT ASSIGNEE(S): ASAHI CHEM IND CO LTD

PATENT INFORMATION:

PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 08208302	A	19960813	Heisei	C04B028-04

## APPLICATION INFORMATION

STN FORMAT: JP 1995-12885 19950130

ORIGINAL: JP07012885 Heisei  
 PRIORITY APPLN. INFO.: JP 1995-12885 19950130  
 SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined  
 Applications, Vol. 1996

INT. PATENT CLASSIF.:  
 MAIN: C04B028-04  
 INDEX: C04B028-04, C04B024:26, C04B024:02, C04B024:04,  
 C04B024:00, C04B014:06, C04B014:28

## ABSTRACT:

PURPOSE: To provide a resin mortar compsn. having high flowability and excellent in elasticity by blending Portland cement with an inorg. filler, latex containing a **volatile** organic solvent having a prescribed b.p. and water in a specified ratio.

CONSTITUTION: This resin mortar compsn. is obtd. by blending 10-40 pts.weight Portland cement with 10-45 pts.weight inorg. filler, 10-35 pts.weight

(expressed

in terms of solid matter) latex containing 1-30wt.% **volatile** organic solvent having  $\geq 150^{\circ}\text{C}$  b.p. and 20-40 pts.weight water. Various cements such as ordinary Portland cement and white Portland cement may be used as the Portland cement. Sand, silica sand, white marble, natural and artificial lightweight aggregates may be used as the inorg. filler. Monoalkyl **ether** of ethylene glycol or propylene glycol may be used as the **volatile** organic solvent. The latex may be any latex satisfying desired performance by mixing with a hydraulic compsn. and it is, e.g. a polymer of a (meth)acrylic ester or styrene.

COPYRIGHT: (C)1996,JPO

L133 ANSWER 27 OF 52 JAPIO (C) 2006 JPO on STN

ACCESSION NUMBER: 1995-041702 JAPIO  
 TITLE: WATER-BASE RUSTPROOF RESIN COATING COMPOSITION  
 APPLICABLE TO OILY SURFACE  
 INVENTOR: SHIOZAKI ISAO; ONO HAJIME; KURODA KIYOSHI; KACHI  
 ISAMU; SAKURABA TOSHIHIKO; TOMIJIMA KAZUNORI;  
 TACHIBANA YOSHINOBU; TSUKIYAMA FUMITOSHI  
 PATENT ASSIGNEE(S): SUMITOMO METAL MINING CO LTD  
 SHOWA HIGHPOLYMER CO LTD

## PATENT INFORMATION:

PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 07041702	A	19950210	Heisei	C09D005-08

## APPLICATION INFORMATION

STN FORMAT: JP 1993-204522 19930727  
 ORIGINAL: JP05204522 Heisei  
 PRIORITY APPLN. INFO.: JP 1993-204522 19930727  
 SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined  
 Applications, Vol. 1995

INT. PATENT CLASSIF.:  
 MAIN: C09D005-08  
 SECONDARY: C09D005-00

## ABSTRACT:

PURPOSE: To obtain a coating compsn. improved in applicability and adhesion to the oily surface of a metal substrate and in water resistance by compounding a water-base copolymer resin emulsion, a rustproof pigment, a hydrophilic organic solvent, a thickener, a dispersant, a wetting agent, and an antifoaming agent.

CONSTITUTION: The coating compsn. of a complete recycle type having a **nonvolatile** content of 20-60wt.% and a pigment volume concentration (PVC)

of 10-50% comprises 10-40wt.% (based on the resin) water-base copolymer resin emulsion selected from the group consisting of a styrene-(meth)acrylic ester-unsatd. carboxylic acid copolymer resin emulsion, an ethylene-vinylcarboxylate copolymer resin emulsion, etc., 0.5-30wt.% at least one rustproof pigment selected from the group consisting of phosphate-, molybdate-, metaborate-, carbonate-, oxide-, and ferrite-based inorg. rustproof pigments and organic rustproof pigments, 0.5-20wt.% hydrophilic organic solvent, 0.1-3wt.% thickener, 0.1-3wt.% dispersant, 0.1-2wt.% wetting agent, and 0.05-2wt.% antifoaming agent.  
COPYRIGHT: (C)1995,JPO

L133 ANSWER 28 OF 52 JAPIO (C) 2006 JPO on STN  
ACCESSION NUMBER: 1993-097630 JAPIO  
TITLE: WATER-BASED NAIL ENAMEL  
INVENTOR: SUGAWARA SUSUMU; FUKUDA KEIICHI; HOSOKAWA HITOSHI  
PATENT ASSIGNEE(S): KAO CORP  
PATENT INFORMATION:

PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 05097630	A	19930420	Heisei	A61K007-043

## APPLICATION INFORMATION

STN FORMAT: JP 1991-290425 19911011  
ORIGINAL: JP03290425 Heisei  
PRIORITY APPLN. INFO.: JP 1991-290425 19911011  
SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 1993

## INT. PATENT CLASSIF.:

MAIN: A61K007-043

## ABSTRACT:

PURPOSE: To provide the title nail enamel capable of giving highly water-resistant films, excellent in gloss, adherability, coating film strength, etc., also having such excellent characteristics as to be free from solvent odor and nonflammable.

CONSTITUTION: The objective nail enamel containing 5-60wt.%, on a solid basis, of a polymer emulsion prepared by copolymerization between (A) 0.5-15wt.% of a silicone macromonomer having siloxane links in the molecule and also having unsaturated bond at the molecular chain terminal pref. 400-20000 or so in weightaverage molecular weight, e.g. a compound of formula I, II, III, IV, or V (R is H or methyl; X is of formula VI) and (B) 85-99.5wt.% of a monomer having double bond copolymerizable with the component A, e.g. an unsaturated carboxylic acid, (meth)acrylic alkyl ester, unsaturated sulfonic acid. Specifically, the polymer emulsion can be prepared, pref. by the following process: the copolymerization is carried out between 1-8wt.% of the component A and 92-99wt.% of the component B in a volatile organic solvent miscible with water, and water is added to the organic solvent solution of the resulting copolymer followed by distilling off the organic solvent.

COPYRIGHT: (C)1993,JPO&Japio

L133 ANSWER 29 OF 52 JAPIO (C) 2006 JPO on STN  
ACCESSION NUMBER: 1993-001244 JAPIO  
TITLE: WATER-DISPERSIBLE RESIN COMPOSITION FOR RUST-PREVENTIVE COATING MATERIAL  
INVENTOR: YAMAGUCHI TAKAHIRO; TOMIJIMA KAZUNORI  
PATENT ASSIGNEE(S): SHOWA HIGHPOLYMER CO LTD  
PATENT INFORMATION:



PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 05001244	A	19930108	Heisei	C09D005-08

## APPLICATION INFORMATION

STN FORMAT: JP 1991-181976 19910626  
ORIGINAL: JP03181976 Heisei  
PRIORITY APPLN. INFO.: JP 1991-181976 19910626  
SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 1993

## INT. PATENT CLASSIF.:

MAIN: C09D005-08  
SECONDARY: C08F212-08; C09D125-08  
ADDITIONAL: C08F002-24

## ABSTRACT:

PURPOSE: To obtain a composition having a high glass transition temperature and excellent rust-preventive properties, adhesion to metal, application properties at high temperature, etc., by emulsion-polymerizing an unsaturated monomer mixture of a specified composition in the presence of a specified amount of a reactive emulsifier.  
CONSTITUTION: An unsaturated monomer mixture mainly consisting of styrene and (meth)acrylic acid ester, containing (x)weight% unsaturated carboxylic acid (e.g. acrylic acid) and (y)weight% glycidylated unsaturated monomer (e.g. glycidyl acrylate), wherein (x)>=0.1, and (y)>=0.1, and (x+y)<=15.1, and having a styrene content of 70wt.% or above is emulsion-polymerized in the presence of 0.3-3wt.%, based on the mixture, reactive emulsifier (e.g. a compound of formula I or II). In this way, a water-dispersible resin composition for a rust-preventive coating material having a glass transition temperature (as determined by the weight fraction method on the formed emulsion copolymer) of 40°C or above can be obtained. This composition is useful as a vehicle for a nonpolluting water-based rust-preventive coating material.

COPYRIGHT: (C)1993,JPO&Japio

L133 ANSWER 30 OF 52 JAPIO (C) 2006 JPO on STN

ACCESSION NUMBER: 1989-170677 JAPIO  
TITLE: TACKY AGENT COMPOSITION  
INVENTOR: MORITA HIROSHI; ISHIZAKI YASUO; AZUMA JUNZO  
PATENT ASSIGNEE(S): LION CORP  
PATENT INFORMATION:

PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 01170677	A	19890705	Heisei	C09J003-14

## APPLICATION INFORMATION

STN FORMAT: JP 1987-330679 19871226  
ORIGINAL: JP62330679 Showa  
PRIORITY APPLN. INFO.: JP 1987-330679 19871226  
SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 1989

## INT. PATENT CLASSIF.:

MAIN: C09J003-14

## ABSTRACT:

PURPOSE: To obtain the title composition, consisting essentially of an aqueous emulsion with a specific particle diameter or below and a crosslinked structure, having excellent transparency and resistance to water and wet bonding and usable in a wide range.

CONSTITUTION: The aimed **nonpollution** and solventless type composition, obtained by emulsion polymerizing (A) an unsaturated monomer f[e.g., (meth) acrylic esters] and (B) an **unsaturated** monomer having reactive functional group (e.g., glycidyl acrylate) at 99/1~60/40 weight ratio using (C) a sulfonate type and poly(meth)acryloyl type emulsifying agent and having <=100nm average particle diameter, crosslinked structure, <=-30mV &zeta;(zeta)-potential and excellent safety.  
COPYRIGHT: (C)1989,JPO&Japio

L133 ANSWER 31 OF 52 JAPIO (C) 2006 JPO on STN  
ACCESSION NUMBER: 1989-026686 JAPIO  
TITLE: ADHESIVE  
INVENTOR: MOTOYAMA TAKUHIKO; MATSUI FUMIO  
PATENT ASSIGNEE(S): SHOWA DENKO KK  
PATENT INFORMATION:

PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 01026686	A	19890127	Heisei	C09J003-14

## APPLICATION INFORMATION

STN FORMAT: JP 1988-69032 19880322  
ORIGINAL: JP63069032 Showa  
PRIORITY APPLN. INFO.: JP 1987-98532 19870423  
SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 1989

## INT. PATENT CLASSIF.:

MAIN: C09J003-14

## ABSTRACT:

PURPOSE: To provide an adhesive of little **volatility** and odor at room temperature, outstanding in adhesivity, weatherability and heat, water and low-temperature resistances, consisting mainly of a composition comprising a specific (meth)acrylate compound, peroxide and elastomer.  
CONSTITUTION: The objective adhesive for firmly bonding metals, ceramics, plastics etc., consisting mainly of a composition comprising (A) (i) (meth)acrylate compound(s) consisting of isobornyl (meth)acrylate and/or caprolactone (meth)acrylate or (ii) a mixture of said compound(s) and another **unsaturated** carboxylic acid (ester) with a boiling point of >=140deg;C (B) a peroxide (e.g., benzoyl peroxide, cumene hydroperoxide) and (C) an elastomer (e.g. polybutadiene, polychloroprene).  
COPYRIGHT: (C)1989,JPO&Japio

L133 ANSWER 32 OF 52 JAPIO (C) 2006 JPO on STN  
ACCESSION NUMBER: 1988-303901 JAPIO  
TITLE: INSECTICIDE  
INVENTOR: SAITO KOICHI; FUJINO MASAHIRO; TOYAMA SHUNROKU  
PATENT ASSIGNEE(S): TORAY IND INC  
PATENT INFORMATION:

PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 63303901	A	19881212	Showa	A01N031-16

## APPLICATION INFORMATION

STN FORMAT: JP 1987-138920 19870604  
ORIGINAL: JP62138920 Showa  
PRIORITY APPLN. INFO.: JP 1987-138920 19870604  
SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined

## Applications, Vol. 1988

## INT. PATENT CLASSIF.:

MAIN: A01N031-16  
SECONDARY: A01N025-10

## ABSTRACT:

PURPOSE: To obtain an insecticide especially useful for insecticidal cotton for FUTON (thick bedquilt), repelling sanitary insect pests in houses such as acarids, having excellent safety and durability approximately free from smell and **volatility**, comprising a composition consisting of a specific vinyl copolymer and a specific compound.

CONSTITUTION: A compound consisting of a vinyl copolymer obtained by reacting a vinyl acrylate compound to which polyethylene glycol is added, such as a phenoxy compound of polyethylene glycol **methacrylate** having 260mol. weight with a vinyl compound such as hydroxyethyl acrylate which contains at least one group selected from carboxyl group, sulfonic group, alkaline (earth) metallic salt thereof, OH, NH<SB>2</SB> and amide group, alkaline (earth) metallic salt thereof, OH, NH<SB>2</SB> and amide group and has <=400mol.weight, a compound such as 2,4,4'-trichloro-2'-**hydroxydiphenyl ether** shown by the formula (X is halogen; Y is OH, OCH<SB>3</SB> or OC<SB>2</SB>H<SB>5</SB>) and optionally a nonionic surface active agent having <=10.0 HLB.

COPYRIGHT: (C)1988,JPO&Japio

L133 ANSWER 33 OF 52 JAPIO (C) 2006 JPO on STN

ACCESSION NUMBER: 1988-210160 JAPIO  
TITLE: COATING RESIN COMPOSITION  
INVENTOR: OGAWA MASAHIKO; HARA YASUAKI  
PATENT ASSIGNEE(S): SHIN ETSU CHEM CO LTD  
PATENT INFORMATION:

PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 63210160	A	19880831	Showa	C08L051-08

## APPLICATION INFORMATION

STN FORMAT: JP 1987-44690 19870227  
ORIGINAL: JP62044690 Showa  
PRIORITY APPLN. INFO.: JP 1987-44690 19870227  
SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 1988

## INT. PATENT CLASSIF.:

MAIN: C08L051-08  
SECONDARY: C08L083-04

## ABSTRACT:

PURPOSE: To provide the title compsn. which has excellent curability and gives a cured film having excellent adhesion and writability, by blending a specified polymer with an organopolysiloxane, a catalyst for condensation reaction and a **volatile** solvent.

CONSTITUTION: Styrene (a) is copolymerized with a (**meth**) **acrylic ester** (b) and a **hydroxy**-terminated polysiloxane (c) in the presence of a polymerization initiator in a solvent and in a nitrogen stream at 100~150deg;C to obtain a polymer (A). 100pts.weight component A is blended with 1~100pts.weight at least one organopolysiloxane (B) selected from the group consisting of organoalkoxypolysiloxanes having at least three alkoxy groups per molecule and organohydrogen polysiloxanes having at least three H atoms attached to Si atoms per molecules, 0.5~50pts.weight catalyst (C) for condensation reaction and a **volatile** solvent (D) to obtain the title compsn. having a viscosity (25deg;C) not higher than 1,000cp. The compsn. is

applied to paper, plastic film, etc. and heat-treated at 80deg;C for higher for 5~10sec to obtain a cured film having a thickness of 0.05~2~m.

COPYRIGHT: (C)1988,JPO&Japio

L133 ANSWER 34 OF 52 JAPIO (C) 2006 JPO on STN

ACCESSION NUMBER: 1986-291607 JAPIO

TITLE: ACRYLIC COPOLYMER AND COATING BASE THEREFOR

INVENTOR: MORIWAKI YUTAKA; UCHIYAMA YUJIRO; TANI AKIO; MATSUMOTO SHIGEAKI; FURUMICHI HIROSHI; MAKISHIMA KOSEI

PATENT ASSIGNEE(S): SUNSTAR INC

OSAKA YUKI KAGAKU KOGYO KK

PATENT INFORMATION:

PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 61291607	A	19861222	Showa	C08F220-06

APPLICATION INFORMATION

STN FORMAT: JP 1985-132808 19850617

ORIGINAL: JP60132808 Showa

PRIORITY APPLN. INFO.: JP 1985-132808 19850617

SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 1986

INT. PATENT CLASSIF.:

MAIN: C08F220-06

SECONDARY: A61K006-00; C08F220-12; C08F220-28

INDEX: C08F220-12, C08F220:06, C08F220:28, C08F230:08

ABSTRACT:

PURPOSE: To provide a novel copolymer highly adhesive to dentin, free from toxic effect due to freeness of unreacted monomer, constituted by such monomer units as (meth)acrylic acid its alkyl

ester, its hydroxyalkyl ester, and (

meth) acryloxy-propyl compound.

CONSTITUTION: The objective copolymer can be obtained by dispersing and dissolving in a volatile solvent such as ethanol (A) 5~30wt%

of (meth) acrylic acid, (B) 20~60wt% of (

meth) acrylic alkyl ester, (C) 20~60wt% of (

meth) acrylic hydroxyalkyl ester,

and (D) 0.2~20wt% of either acryloxypropyl or

methacryloxypropyl trialkoxysilane, followed by polymerization

using a catalyst such as 2,2'-azobisisobutyronitrile. This novel copolymer has formula (R<SP>1</SP> is 1~10C alkyl; R<SP>2</SP> is lower alkyl;

R<SP>3</SP>~R<SP>7</SP> are each H or CH<SB>3</SB>, W, X, Y and Z are 5~30wt%, 20~60wt%, 20~60wt%, and 0.2~20wt%, respectively).

USE: Applicable in the form of a dental adhesive coating base incorporated with 5~40wt%, on the total basis, of said copolymer.

COPYRIGHT: (C)1986,JPO&Japio

L133 ANSWER 35 OF 52 JAPIO (C) 2006 JPO on STN

ACCESSION NUMBER: 1983-176284 JAPIO

TITLE: RELEASABLE SELF-ADHESIVE

INVENTOR: MIYAJIMA TSUNEHISA; OZAKI KAZUMASA; KAWASHIMA KENJI

PATENT ASSIGNEE(S): SAIDEN KAGAKU KK

PATENT INFORMATION:

PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 58176284	A	19831015	Showa	C09J003-14

## APPLICATION INFORMATION

STN FORMAT: JP 1982-58995 19820410  
 ORIGINAL: JP57058995 Showa  
 PRIORITY APPLN. INFO.: JP 1982-58995 19820410  
 SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined  
 Applications, Vol. 1983  
 INT. PATENT CLASSIF.:  
 MAIN: C09J003-14

## ABSTRACT:

PURPOSE: To provide a releasable self-adhesive which shows little change in bonding strength with time after application and has excellent soil and weathering resistance, consisting of an aqueous dispersion of copolymer containing (meth)acrylic ester, ethylenically unsatd. monomer and a specified complex salt.

CONSTITUTION: The self-adhesive consists mainly of (A) aqueous dispersion of an acrylic copolymer obtained by copolymerization of (a) 40&sim;99wt% (meth)acrylic ester with 4&sim;12C alkyl gp., (b) 1&sim;20wt% carboxyl group-containing ethylenically unsatd. monomer and (c) 0&sim;59wt% ethylenically unsatd. monomer other than (a) and (b) and (B) complex salt of formula.  $M(Z)$  Anion (where M is polyvalent metal such as Cr, Cu, Zn, Ti, Zr, Mn, Fe or Co; Anion is  $CO<SB>2</SB><SP>2</SP>$ ,  $PO<SB>4</SB><SP>3</SP>$ ,  $HPO<SB>4</SB><SP>2</SP>$ ,  $CrO<SB>4</SB><SP>2</SP>$ ,  $COO<SP>-</SP>$ ; Z is ammonia or volatile amine)

COPYRIGHT: (C)1983,JPO&Japio

L133 ANSWER 36 OF 52 JAPIO (C) 2006 JPO on STN

ACCESSION NUMBER: 1983-076414 JAPIO  
 TITLE: ANAEROBICALLY CURABLE COMPOSITION AND ITS MANUFACTURE  
 INVENTOR: KANEOKA KUNIO; OKAMOTO TAKANORI; MATSUDA HIDEAKI  
 PATENT ASSIGNEE(S): OKURA IND CO LTD  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 58076414	A	19830509	Showa	C08F299-06

## APPLICATION INFORMATION

STN FORMAT: JP 1981-172814 19811030  
 ORIGINAL: JP56172814 Showa  
 PRIORITY APPLN. INFO.: JP 1981-172814 19811030  
 SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined  
 Applications, Vol. 1983

## INT. PATENT CLASSIF.:

MAIN: C08F299-06  
 SECONDARY: C08G018-67; C08G018-69; C09J003-16

## ABSTRACT:

PURPOSE: To obtain titled composition of good shelf stability, capable of providing highly elastic cured products, by incorporating a specific polymerizable monomer mixture with a chelate-forming amino polycarboxylic acid and aqueous ammonia and then stirring the resultant system under a particular condition followed by the addition of a specific salt.

CONSTITUTION: 100pts.weight of a mixture comprising (A) 20&sim;90wt% of an urethane polymethacrylate prepared by the addition reaction between (i) a hydroxyl group-containing polybutadiene-based liquid rubber having  $\geq 70\%$  1,4-bond, (ii) a polyisocyanate, and (iii) a hydroxyl group-containing methacrylic ester in such a manner that the amounts of the OH-group and the NCO-group are equivalent each other and (B) 80&sim;10wt% of a polymerizable methacrylic ester is incorporated with (C) 0.0001&sim;0.2pts.weight of a chelate-forming

amino-polycarboxylic acid (Salt) and (D) 0.01~5pts.weight of aqueous ammonia. The resultant system is agitated at  $\leq 150^{\circ}\text{C}$  until the pH-value of the volatile components falls  $\leq 9$  while removing said components, ~~followed by adding~~ (E) 0.1~5pts.weight of a salt from o-benzoic sulfimide and an amine of formula, thus obtaining the objective composition.

COPYRIGHT: (C)1983,JPO&Japio

L133 ANSWER 37 OF 52 JAPIO (C) 2006 JPO on STN  
 ACCESSION NUMBER: 1983-011504 JAPIO  
 TITLE: SCALE PREVENTING AGENT IN POLYMERIZING VINYL MONOMER  
 INVENTOR: ASAHU TETSUYA; SHOJI OSAMU; SHIMIZU AKIHIKO  
 PATENT ASSIGNEE(S): TOYO SODA MFG CO LTD  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 58011504	A	19830122	Showa	C08F002-00

APPLICATION INFORMATION

STN FORMAT: JP 1981-109464 19810715  
 ORIGINAL: JP56109464 Showa  
 PRIORITY APPLN. INFO.: JP 1981-109464 19810715  
 SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 1983

INT. PATENT CLASSIF.:

MAIN: C08F002-00

ABSTRACT:

PURPOSE: The titled scale preventing agent, consisting of an acrylic copolymer consisting of a specific monomer, a polymerization inhibitor and an epoxy compound, capable of inhibiting the occurrence of fine polymers, and repeatedly usable.

CONSTITUTION: (A) An acrylic copolymer consisting of a monomer of formula I ( $R_{1}$  is H or methyl;  $R_{2}$  is N-monoalkyl substituted aminoalkyl or N-dialkyl substituted aminoalkyl), e.g. dimethylaminoethyl methacrylate, and a monomer of formula III ( $R_{3}$  is H or methyl;  $R_{4}$  is hydroxyalkyl), e.g. 2-hydroxyethyl acrylate, at a weight ratio of (1/99)~(99/1), (B) 0.05~30wt%, based on the component (A), water-soluble polymerization inhibitor, and (C) 40~5wt%, based on the nonvolatile component, water-soluble hydrophilic epoxy compound, e.g. polyethylene glycol diglycidyl ether, are dissolved in a solvent, e.g. water, to give the sined scale preventing agent.

COPYRIGHT: (C)1983,JPO&Japio

L133 ANSWER 38 OF 52 JAPIO (C) 2006 JPO on STN  
 ACCESSION NUMBER: 1981-133351 JAPIO  
 TITLE: COATING RESIN COMPOSITION  
 INVENTOR: KAGEISHI KAZUJI; SAKABE TAKEHIDE; KISHI NAOYUKI; NAGASAKA YUKIO  
 PATENT ASSIGNEE(S): ATOM KAGAKU TORYO KK  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 56133351	A	19811019	Showa	C08L033-08

APPLICATION INFORMATION

STN FORMAT: JP 1980-36168 19800324  
 ORIGINAL: JP55036168 Showa

PRIORITY APPLN. INFO.: JP 1980-36168 19800324  
 SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined  
 Applications, Vol. 1981

INT. PATENT CLASSIF.:  
 MAIN: C08L033-08  
 SECONDARY: C09D003-80

## ABSTRACT:

PURPOSE: A resin composition, containing a polymer consisting of a specific monomer, (meth)acrylic ester and an acrylic monomer containing a carboxyl group, and capable of forming a film having well-balanced properties of adhesion, durability, gasoline resistance, gloss, etc.  
 CONSTITUTION: A mixture of 5~75wt% monomer expressed by the formula (R is hydrogen or methyl; R' is hydrogen or 1~4C alkyl) with 15~40wt% monomer consisting of an ester of acrylic acid and/or **methacrylic** acid with a 12~18C aliphatic alcohol and 1~10wt% acrylic monomer containing a carboxyl group is polymerized and then neutralized with a **volatile** basic substance to give a polymer. The resultant polymer preferably has a number-average molecular weight of 8,000~25,000 and a glass transition temperature of 35~65°C. A monomer consisting of ethylene **glycol ester** of acrylic acid, acrylamide, etc. may also be effectively incorporated therein.  
 COPYRIGHT: (C)1981,JPO&Japio

L133 ANSWER 39 OF 52 JAPIO (C) 2006 JPO on STN

ACCESSION NUMBER: 1980-067743 JAPIO  
 TITLE: NOVEL LIQUID-FORM RESIN COMPOSITION FOR FORMING  
 PHOTSENSITIVE DRY FILM  
 INVENTOR: TAKEUCHI KOJI; NAKANE HISASHI  
 PATENT ASSIGNEE(S): TOKYO OHKA KOGYO CO LTD  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 55067743	A	19800522	Showa	G03C001-68

## APPLICATION INFORMATION

STN FORMAT: JP 1978-140491 19781116  
 ORIGINAL: JP53140491 Showa  
 PRIORITY APPLN. INFO.: JP 1978-140491 19781116  
 SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined  
 Applications, Vol. 1980

INT. PATENT CLASSIF.:  
 MAIN: G03C001-68  
 SECONDARY: C08F020-32; G03C001-71; G03F007-10; G03F007-12

## ABSTRACT:

PURPOSE: To obtain the captioned liquid-form resin composition which has softness, is superior in resolving power and printing resistance and is capable of forming the photosensitive film which may be stored for a long period of time by combining the specific two kinds of alkali soluble polymers and compounding the specific photosensitive elements therewith.  
 CONSTITUTION: The photosensitive element binder (A) composed of the copolymer (a) of molecular weights 50,000~150,000 consisting of ( **meth**)**acrylic** acid 10~25wt% and (meth)**acrylate** ester 90~75wt% and a hydrophilic polymer (b) such as (meth)**acrylic** acid-vinyl acetate copolymer or water soluble polyamide or the like and the photosensitive element (B) composed of glycidyl ether acrylate (c) and photopolymerization initiator (2-ethyl anthraquinone, benzophenone, etc.) (d) as well as a **volatile** solvent having compatibility to the above-mentioned components A, B (lower alcohols, alkyl **ethers** of ethylene **glycol**, etc.) (C)

are compounded, whereby the captioned composition is obtained.  
COPYRIGHT: (C)1980,JPO&Japio

L133 ANSWER 40 OF 52 JAPIO (C) 2006 JPO on STN  
ACCESSION NUMBER: 2003-321642 JAPIO  
TITLE: RESIN COMPOSITION FOR WATER-BASED COATING MATERIAL AND  
METHOD FOR PRODUCING THE SAME  
INVENTOR: TSUKIYAMA FUMITOSHI  
PATENT ASSIGNEE(S): DAICEL CHEM IND LTD  
PATENT INFORMATION:

PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 2003321642	A	20031114	Heisei	C09D133-06

## APPLICATION INFORMATION

STN FORMAT: JP 2002-130934 20020502  
ORIGINAL: JP2002130934 Heisei  
PRIORITY APPLN. INFO.: JP 2002-130934 20020502  
SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined  
Applications, Vol. 2003  
INT. PATENT CLASSIF.:  
MAIN: C09D133-06  
SECONDARY: C09D005-02; C09D125-04; C09D157-00; C09D157-10;  
C09D171-08

## ABSTRACT:

PROBLEM TO BE SOLVED: To provide a resin composition for a water-based coating material, having extremely lowered VOC content, emitting low odor and exhibiting excellent low-temperature film-forming property, surface non-tackiness, low-temperature stability, etc.  
SOLUTION: The resin composition for a water-based coating material contains a copolymer resin emulsion having a glass transition temperature of -25&deg;C to +25&deg;C and obtained by the polymerization of a (meth)acrylic acid 1-18C alkyl ester, a polymerizable **unsaturated** monomer having an acidic group and optionally a hydroxy-containing polymerizable unsaturated monomer and a styrene monomer. The composition further contains a polyalkylene glycol having an average molecular weight of 200-2,000 in an amount of 0.2-5 weight% based on the **nonvolatile** component of the resin component, has the lowest film-forming temperature of <=5&deg;C, is free from organic solvent having a boiling point of <=260&deg;C and has a residual monomer content of <100 ppm by weight based on the composition.  
COPYRIGHT: (C)2004,JPO

L133 ANSWER 41 OF 52 TOXCENTER COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2002:157143 TOXCENTER  
COPYRIGHT: Copyright 2006 ACS  
DOCUMENT NUMBER: CA13704048640H  
TITLE: Acrylic epoxy resin-based rustproof aqueous coatings  
without heavy metal pollutants  
AUTHOR(S): Saito, Yasuhisa; Takemoto, Kozo; Kasuga, Terumasa  
CORPORATE SOURCE: ASSIGNEE: Shinto Paint Co., Ltd.  
PATENT INFORMATION: JP 2002188046 A2 5 Jul 2002  
SOURCE: (2002) Jpn. Kokai Tokkyo Koho, 6 pp.  
CODEN: JKXXAF.  
COUNTRY: JAPAN  
DOCUMENT TYPE: Patent  
FILE SEGMENT: CAPLUS  
OTHER SOURCE: CAPLUS 2002:503768  
LANGUAGE: Japanese



ENTRY DATE: Entered STN: 16 Jul 2002  
Last Updated on STN: 20 Aug 2002

## ABSTRACT:

The coatings comprise aqueous dispersions prepared by polymerization of 20-60%  $\alpha,\beta$ -ethylenically unsatd. monomers containing  $\alpha,\beta$ -ethylenically unsatd. carboxylic acids in the presence of 40-80% unsatd. fatty acid esters of epoxy resins. Thus, 100 parts Epikote 1004 ester with dehydrated castor oil and with linseed oil was reacted with styrene 105, Me \*\*\*methacrylate\*\*\* 60, Blemmer PP 800 (polypropylene glycol \*\*\*methacrylate\*\*\* ) 30, NK Ester M 90G (methoxypolyethylene \*\*\*glycol\*\*\* methacrylate) 30, iso-Bu methacrylate 30, and acrylic acid 40 parts in the presence of Percumyl D (dicumyl peroxide) and AMBN [2-azobis(2-methylbutyronitrile)] and formulated with Et3N, water, and other coating additives to give a coating showing excellent adhesion to steel and forming an impact- and corrosion-resistant coating layer.

CLASSIFICATION CODE: 42-9

## SUPPLEMENTARY TERMS: Miscellaneous Descriptors

epoxy resin castor oil ester rustproof coating; metal pollutant free epoxy coating rustproof; acrylic epoxy waterproof anticorrosive coating **nonpolluting**

REGISTRY NUMBER: 79-10-7Q (Acrylic acid, polymers with unsatd. fatty acid esters of epoxy resins and acrylic monomers, triethylamine salt)  
80-62-6Q (Methyl **methacrylate**, polymers with unsatd. fatty acid **esters** of epoxy resins and acrylic monomers, triethylamine salt)  
97-86-9Q (Isobutyl **methacrylate**, polymers with unsatd. fatty acid **esters** of epoxy resins and acrylic monomers, triethylamine salt)  
100-42-5Q (Styrene, polymers with unsatd. fatty acid esters of epoxy resins and acrylic monomers, triethylamine salt)  
121-44-8Q (Triethylamine, reaction products with acrylic epoxy resins)  
25068-38-6Q (Epikote 1004, esters with unsatd. fatty acids, polymers with unsatd. monomers, triethylamine salt)  
26915-72-0Q (NK Ester M 90G, polymers with unsatd. fatty acid esters of epoxy resins and acrylic monomers, triethylamine salt)  
39420-45-6Q (Blemmer PP 800, polymers with unsatd. fatty acid esters of epoxy resins and acrylic monomers, triethylamine salt)

L133 ANSWER 42 OF 52 TOXCENTER COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:143436 TOXCENTER

COPYRIGHT: Copyright 2006 ACS

DOCUMENT NUMBER: CA13704048625G

TITLE: Water-thinned coating compositions for indoor uses having harmful compound-adsorbing properties

AUTHOR(S): Miura, Tadatsugu; Tamura, Masataka; Zen, Keiichiro

CORPORATE SOURCE: ASSIGNEE: Rock Paint Co., Ltd.

PATENT INFORMATION: JP 2002173645 A2 21 Jun 2002

SOURCE: (2002) Jpn. Kokai Tokkyo Koho, 14 pp.  
CODEN: JKXXAF.

COUNTRY: JAPAN

DOCUMENT TYPE: Patent

FILE SEGMENT: CAPLUS

OTHER SOURCE: CAPLUS 2002:464273

LANGUAGE: Japanese

ENTRY DATE: Entered STN: 26 Jun 2002

Last Updated on STN: 30 Jul 2002

## ABSTRACT:

The coating compns. comprise polymers with good film formability and stability at low temps. in the absence of **volatile** organic compds., additives for adsorbing harmful compds. (e.g., HCHO, H<sub>2</sub>S), and additives for decomposing the harmful compds. Thus, a composition containing two-layer acrylic emulsion prepared from

2-ethylhexyl acrylate, Me methacrylate, acrylic acid, 2-hydroxyethyl methacrylate and Seventol (Ti-Zn-P complex photocatalyst) was applied on a plate to give a coating with HCHO adsorbing property, good weather resistance and storage stability.

CLASSIFICATION CODE: 42-7

SUPPLEMENTARY TERMS: Miscellaneous Descriptors

indoor coating water thinned acrylic storage stability;  
photocatalyst titanium zinc phosphorus complex coating  
adsorbent; ethylhexyl methyl hydroxyethyl acrylate coating  
weather resistance

## REGISTRY NUMBER:

7631-86-9Q (Silica, titanium oxide-modified)  
13463-67-7 (Titanium dioxide)  
7440-44-0 (Activated carbon)  
1335-30-4 (Aluminum silicate)  
7664-38-2Q (Phosphoric acid, derivs.)  
1314-13-2 (Zinc oxide)  
1317-70-0 (Anatase)  
7440-32-6Q (Titanium, complex with Zn and P)  
7440-66-6Q (Zinc, complex with Ti and P)  
7723-14-0Q (Phosphorus, complex with Ti and Zn)  
186554-67-6 (Seventol)  
239082-80-5 (Tipaque STE 01)  
100594-53-4 (Acrylic acid-2-ethylhexyl  
acrylate-2-hydroxyethyl methacrylate-methyl methacrylate  
copolymer ammonium salt)  
438042-08-1 (Dimethylolpropionic acid-2-ethylhexyl  
acrylate-2-hydroxyethyl methacrylate-isophorone  
diisocyanate-methyl methacrylate-polyethylene  
glycol-polypropylene glycol copolymer)  
438042-11-6 (Dimethylolpropionic acid-ethylene  
glycol-2-ethylhexyl acrylate-2-hydroxyethyl  
methacrylate-isophorone diisocyanate-methyl  
methacrylate-polypropylene glycol copolymer)  
438044-19-0 (Dimethylolpropionic acid-2-ethylhexyl  
acrylate-2-hydroxyethyl **methacrylate**-isophorone  
diisocyanate-methyl **methacrylate**-polyethylene  
glycol-polypropylene **glycol** copolymer methyl  
**ester**)  
438044-45-2 (Dimethylolpropionic acid-2-ethylhexyl  
acrylate-2-hydroxyethyl **methacrylate**-isophorone  
diisocyanate-methyl **methacrylate**-polypropylene  
**glycol** copolymer methyl **ester**)

L133 ANSWER 43 OF 52 TOXCENTER COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:77708 TOXCENTER

COPYRIGHT: Copyright 2006 ACS

DOCUMENT NUMBER: CA13615233209S

TITLE: Pressure-sensitive adhesive compositions, acrylic polymers for their manufacture and articles using them

AUTHOR(S): Fujii, Takao; Kume, Akira; Saito, Masahito; Uemae, Masami

CORPORATE SOURCE: ASSIGNEE: Nippon Carbide Industries Co., Inc.

PATENT INFORMATION: JP 200269134 A2 8 Mar 2002

SOURCE: (2002) Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF.  
COUNTRY: JAPAN  
DOCUMENT TYPE: Patent  
FILE SEGMENT: CAPLUS  
OTHER SOURCE: CAPLUS 2002:169628  
LANGUAGE: Japanese  
ENTRY DATE: Entered STN: 3 Apr 2002  
Last Updated on STN: 23 Apr 2002

## ABSTRACT:

The adhesive compns. with good adhesion and coagulation strength, are obtained from acrylic polymers which have been prepared from (A) acrylic acid esters having the assumed homopolymer-based glass transition temperature (Tg) of <-20°, 55-99.9, (B) unsatd. mono- or dicarboxylic acids 0.1-5, (C) functional comonomers 0-5, and (D) other comonomers 0-45% in an emulsion polymerization using C10-20 aliphatic alc. polyethylene glycol ether-type nonionic surfactants and polyethylene oxide polycyclic Ph ether sulfate ester salt-type anionic surfactants as emulsifiers for eliminating the risk of polluting environment with carcinogenic substances such as alkylphenol compds. after their discharge into stream and river. Thus, an acrylic acid for pressure-sensitive adhesive was prepared in this manner from 2-ethylhexyl acrylate 588, acrylic acid 7 and Me methacrylate 105 by using polyethylene glycol oleyl ether 7 and polyethylene \*\*\*glycol\*\*\* distyrylphenyl ether sulfate ester ammonium salt.

CLASSIFICATION CODE: 38-3

SUPPLEMENTARY TERMS: Miscellaneous Descriptors  
acrylic polymer manuf **nonpollution** surfactant  
emulsifier pressure sensitive adhesive; nonionic anionic  
surfactant emulsifier acrylic polymer pressure sensitive  
adhesive

REGISTRY NUMBER: 59891-11-1 (Polyethylene glycol distyrylphenyl ether  
sulfate ester ammonium salt)  
403705-23-7 (Newcol 723SF)  
9004-98-2 (Polyethylene glycol mono-oleyl ether)  
403613-23-0 (Acrylic acid-Blemmer PME 100-2-ethylhexyl  
acrylate-methyl methacrylate copolymer)  
30705-21-6 (Acrylic acid-2-ethylhexyl acrylate-methyl  
methacrylate copolymer)  
REGISTRY NUMBER: 42398-14-1

L133 ANSWER 44 OF 52 TOXCENTER COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:120280 TOXCENTER

COPYRIGHT: Copyright 2006 ACS

DOCUMENT NUMBER: CA13504047673T

TITLE: Internally plasticized and low VOC latex  
compositions, ethyleneically unsaturated carboxylate  
monomer, and their coating, adhesive or ink applications  
AUTHOR(S): Thames, Shelby Freland; Wang, Zhiyu; Hariharan, Rajan;  
Panjnani, Kamlesh Gopichand; Brister, Elizabeth H.; King,  
Corey L.

CORPORATE SOURCE: ASSIGNEE: University of Southern Mississippi

PATENT INFORMATION: WO 2001044380 A2 21 Jun 2001

SOURCE: (2001) PCT Int. Appl., 62 pp.

CODEN: PIXXD2.

COUNTRY: UNITED STATES

DOCUMENT TYPE: Patent

FILE SEGMENT: CAPLUS

OTHER SOURCE: CAPLUS 2001:453182

LANGUAGE: English

ENTRY DATE: Entered STN: 16 Nov 2001

Last Updated on STN: 19 Mar 2002

## ABSTRACT:

Novel latex or emulsion compns. containing internally plasticizing and crosslinkable monomers are derived from traditional semi-drying or nondrying oils. The monomers are ethylenically unsatd. esters of long-chain olefinic compds. Latex are formed from acrylate or **methacrylate** **\*\*\*esters\*\*\*** of **hydroxy** fatty acid **esters** derived from castor oil or lesquerella oil. The synthesis of the latex composition involves (a) an esterification reaction of ethylenically unsatd. carboxylic acid or its derivs. with a substituted hydroxy long-chain olefinic compound, (b) subsequent polymerization of the so formed ethylenically unsatd. ester of a long-chain olefinic compound in an aqueous phase with  $\geq 1$  other copolymerizable monomer, and (c) blending with  $\geq 1$  drier and a surfactant. These compns. form films at low min. film forming temps. (MFT)  $-5$  to  $10^\circ$  and cure to above ambient glass transition ( $T_g$ ) polymers without the use of traditional organic cosolvents which contribute to environmental pollution via **volatile** organic compds. (VOCs) emissions. These compns. are useful in waterborne coatings, contact and pressure sensitive adhesives, and inks. Coating films utilizing Bu acrylate-Me methacrylate-acrylated Me ricinoleate (10%) copolymer (preparation given) showed  $\tan \delta$  temperature  $24.3^\circ$ , scrub resistance (ML 200) 186, and 8 wk blocking resistance 7.5; vs.  $17.5^\circ$ , 563, and 1.0, resp., using Bu acrylate-Me methacrylate-methacrylic acid copolymer latex.

CLASSIFICATION CODE: 42-7

SUPPLEMENTARY TERMS: Miscellaneous Descriptors

waterborne coating latex acrylate ester hydroxy fatty oil polymer; ink emulsion acrylate ester hydroxy fatty oil polymer; adhesive emulsion acrylate ester hydroxy fatty oil polymer; vinyl acrylic latex coating  
108-05-4Q (Vinyl acetate, polymer with Bu acrylate and castor oil methacrylate)  
141-32-2Q (Butyl acrylate, polymer with vinyl acetate and castor oil methacrylate)  
85356-84-9Q (Sipomer WAM, polymer with acrylate, and lesquerella oil acrylate)  
98716-57-5 (Methyl ricinoleate methacrylate-vinyl acetate copolymer)

REGISTRY NUMBER: 219696-90-9; 330197-59-6; 330197-63-2; 330197-65-4; 330197-68-7; 330197-70-1; 14202-22-3; 98716-54-2

L133 ANSWER 45 OF 52 TOXCENTER COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:111045 TOXCENTER

COPYRIGHT: Copyright 2006 ACS

DOCUMENT NUMBER: CA13426367352A

TITLE: Internally plasticizing and crosslinkable monomers and applications thereof

AUTHOR(S): Thames, Shelby Freland; Panjnani, Kamlesh Gopichand; Hariharan, Rajan; Wang, Zhiyu

CORPORATE SOURCE: ASSIGNEE: University of Southern Mississippi

PATENT INFORMATION: US 6235916 B1 22 May 2001

SOURCE: (2001) U.S., 20 pp.

CODEN: USXXAM.

COUNTRY: UNITED STATES

DOCUMENT TYPE: Patent

FILE SEGMENT: CAPLUS

OTHER SOURCE: CAPLUS 2001:366732

LANGUAGE: English

ENTRY DATE: Entered STN: 16 Nov 2001

Last Updated on STN: 13 Mar 2002

## ABSTRACT:

Novel compds. derived from traditional semi-drying and non-drying oils

featuring internally plasticizing and crosslinkable properties are disclosed and claimed. Preferred embodiments include acrylate or **methacrylate** **\*\*\*esters\*\*\*** of **hydroxy** long-chain olefinic compds. derived from castor oil or lesquerella oil. A process for the preparation of the novel compds. is also disclosed, which involves esterification reaction of ethylenically unsatd. carboxylic acids or its derivs. with substituted hydroxy long-chain olefinic compds. These compds. are suitable for forming latices, which form films at low min. film forming temps. (MFT) ranging from -5 to 10° and cure to above ambient glass transition (Tg) polymers without the use of traditional organic cosolvents which contribute to environmental pollution via **\*\*\*volatile\*\*\*** organic compds. (VOCs) emissions. These latices are therefore useful in waterborne coatings, contact and pressure sensitive adhesives, and inks.

CLASSIFICATION CODE: 35-2

SUPPLEMENTARY TERMS: Miscellaneous Descriptors

acrylated castor oil monomer coating; lesquerella oil  
acrylated monomer coating  
REGISTRY NUMBER: 108-05-4Q (Vinyl acetate, polymers with unsatd. carboxylic acid esters)  
141-24-2 (Methyl ricinoleate)  
4102-96-9 (Methyl lesquerolate)  
79-10-7Q (Acrylic acid, polymers with unsatd. carboxylic acid esters)  
80-62-6Q (Methyl **methacrylate**, polymers with **unsatd. carboxylic acid esters**)  
141-24-2Q (Methyl ricinoleate, acrylated, polymers)  
141-32-2Q (Butyl acrylate, polymers with unsatd. carboxylic acid esters)  
814-68-6Q (Acryloyl chloride, reaction products with castor oil, polymers)  
920-46-7Q (Methacryloyl chloride, reaction products with castor oil, polymers)

L133 ANSWER 46 OF 52 TOXCENTER COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:91533 TOXCENTER

COPYRIGHT: Copyright 2006 ACS

DOCUMENT NUMBER: CA13417239014E

TITLE: Low MFT and high Tg , internally plasticizing, and low VOC latex coating compositions

AUTHOR(S): Thames, Shelby Freland; Panjnani, Kamlesh Gopichand; Hariharan, Rajan; Wang, Zhiyu

CORPORATE SOURCE: ASSIGNEE: University of Southern Mississippi

PATENT INFORMATION: US 6203720 B1 20 Mar 2001

SOURCE: (2001) U.S., 18 pp.

CODEN: USXXAM.

COUNTRY: UNITED STATES

DOCUMENT TYPE: Patent

FILE SEGMENT: CAPLUS

OTHER SOURCE: CAPLUS 2001:192564

LANGUAGE: English

ENTRY DATE: Entered STN: 16 Nov 2001

Last Updated on STN: 13 Mar 2002

ABSTRACT:

Latex or emulsion compns. contain internally plasticizing and crosslinkable monomers derived from traditional semi-drying or nondrying oils. The monomers are ethylenically **unsatd. esters** of long-chain olefinic compds., preferably acrylate or **methacrylate esters** of **\*\*\*hydroxy\*\*\*** fatty acid **esters** derived from castor oil or lesquerella oil. The latex composition is made by (a) an esterification reaction of ethylenically unsatd. carboxylic acid or its derivs. with a substituted hydroxy

long-chain olefinic compound, (b) subsequent polymerization of the ethylenically unsatd.

ester of a long-chain olefinic compound in an aqueous phase with  $\geq 1$  other copolymerizable monomer, and (c) blending polymer with  $\geq 1$  drier and a surfactant. These compns. form films at low min. film forming temps. (MFT) -5 to 10° and cure to above ambient glass transition (Tg) without the use of traditional organic cosolvents which contribute to environmental pollution via \*\*\*volatile\*\*\* organic compds. (VOCs) emissions. These compns. are useful in waterborne coatings, contact and pressure sensitive adhesives, and inks. An ink formulation contained acrylated Me lesquerolate monomer (preparation given) 21.4, Fluorescent rocket red AX-135 1.0, Photomer 3016 17.0, Photomer 4061 19.0, Photomer 4094 15.6, Photomer 4149 4.4, Photomer 4770 5.5, Photomer 6008 11.2, Byk 065 0.4, Byk 358 0.3, Byk 325 0.3, Irgacure 651 2.7, and benzophenone 1.3 parts.

CLASSIFICATION CODE: 42-12

SUPPLEMENTARY TERMS: Miscellaneous Descriptors

waterborne coating latex acrylate ester hydroxy fatty oil polymer; ink emulsion acrylate ester hydroxy fatty oil polymer; adhesive emulsion acrylate ester hydroxy fatty oil polymer; vinyl acrylic latex coating  
REGISTRY NUMBER: 108-05-4Q (Vinyl acetate, polymer with Bu acrylate and castor oil methacrylate)  
141-32-2Q (Butyl acrylate, polymer with vinyl acetate and castor oil methacrylate)  
85356-84-9Q (Sipomer WAM, polymer with acrylate, and lesquerella oil acrylate)  
98716-57-5 (Methyl ricinoleate methacrylate-vinyl acetate copolymer)  
REGISTRY NUMBER: 330197-59-6; 330197-63-2; 330197-65-4; 330197-68-7; 330197-70-1; 14202-22-3; 98716-54-2

L133 ANSWER 47 OF 52 TOXCENTER COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:121532 TOXCENTER

COPYRIGHT: Copyright 2006 ACS

DOCUMENT NUMBER: CA13213167772J

TITLE: Anticorrosive coating compositions containing vinyl ester resins and slate structures coated with them

AUTHOR(S): Tsukamoto, Kazuya; Iiyama, Takashi; Kobori, Junzo; Nagasaki, Hideo; Konnai, Nobuo; Nozaki, Masashi; Maeda, Shigeki

CORPORATE SOURCE: ASSIGNEE: Nihon CRM K. K.

PATENT INFORMATION: JP 200063449 A2 29 Feb 2000

SOURCE: (2000) Jpn. Kokai Tokkyo Koho, 9 pp.  
CODEN: JKXXAF.

COUNTRY: JAPAN

DOCUMENT TYPE: Patent

FILE SEGMENT: CAPLUS

OTHER SOURCE: CAPLUS 2000:137308

LANGUAGE: Japanese

ENTRY DATE: Entered STN: 16 Nov 2001

Last Updated on STN: 9 Apr 2002

#### ABSTRACT:

The structures have slate substrates, primer layers, and anticorrosive coating layers from the compns. containing styrene-free vinyl ester resins (containing vinyl esters and low-volatile radically polymerizable monomers) 70-85, inorg. filler flakes 15-30, and radical-curing accelerators 0.5-2.0 parts. Thus, an asbestos cement perlite plate was coated with a 100:300 epoxy resin-mortar mixture, primed with a composition containing 100 parts vinyl ester resin (containing Epikote 828 methacrylate, ethylene glycol dimethacrylate, and

trimethylolpropane diallyl ether) and 10 parts polyurethane, and coated with a composition containing the same vinyl ester resin and MEK peroxide and cured to give a coated slate showing 2.26% weight change after 60-mo immersion in 10% aqueous H<sub>2</sub>SO<sub>4</sub>.

CLASSIFICATION CODE: 42-10

SUPPLEMENTARY TERMS: Miscellaneous Descriptors  
anticorrosive coating vinyl ester resin slate; epoxy  
methacrylate acid resistant coating slate

REGISTRY NUMBER: 212335-31-4 (Epikote 828 **methacrylate**-ethylene  
**glycol** dimethacrylate-trimethylolpropane diallyl  
**ether** copolymer)  
259094-08-1 (Epikote 828 methacrylate-ethylene glycol  
dimethacrylate-maleic anhydride-trimethylolpropane diallyl  
ether copolymer)

L133 ANSWER 48 OF 52 TOXCENTER COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:226501 TOXCENTER

COPYRIGHT: Copyright 2006 ACS

DOCUMENT NUMBER: CA13413179226P

TITLE: HAPS emission with multifunctional acrylic monomers

AUTHOR(S): Costin, Richard; Bailey, Michael

CORPORATE SOURCE: USA.

SOURCE: Composites Fabrication, (2000) Vol. 16, No. 10, pp. 84-86,  
90.

CODEN: COFAFG. ISSN: 1084-841X.

COUNTRY: UNITED STATES

DOCUMENT TYPE: Journal

FILE SEGMENT: CAPLUS

OTHER SOURCE: CAPLUS 2000:899939

LANGUAGE: English

ENTRY DATE: Entered STN: 16 Nov 2001

Last Updated on STN: 13 Mar 2002

ABSTRACT:

Replacing styrene as additive in unsatd. polyester resins by functionalized acrylic monomers (such as aliphatic or aromatic diacrylates or dimethacrylates) results in a decrease of the release of organic substances from the polymer surface, while maintaining similar phys. properties, as is demonstrated with examples using a dicyclopentadiene-based polyester composition

CLASSIFICATION CODE: 37-5

SUPPLEMENTARY TERMS: Miscellaneous Descriptors  
polyester resin additive acrylic monomer **volatile**  
compd release; air pollution control polyester resin  
additive acrylic monomer

REGISTRY NUMBER: 77-73-6Q (Dicyclopentadiene, **esters**, polymers  
with ethylene **glycol**, maleic anhydride, styrene,  
and acrylates and **methacrylates**)  
79-10-7Q (Acrylic acid, esters, polymers with  
dicyclopentadiene, ethylene glycol, maleic anhydride, and  
styrene)  
79-41-4Q (Methacrylic acid, esters, polymers with  
dicyclopentadiene, ethylene glycol, maleic anhydride, and  
styrene)  
100-42-5Q (Styrene, esters, polymers with  
dicyclopentadiene, ethylene glycol, maleic anhydride, and  
acrylates and methacrylates)  
107-21-1Q (Ethylene **glycol**, **esters**,  
polymers with dicyclopentadiene, maleic anhydride,  
styrene, and acrylates and **methacrylates**)  
110-16-7Q (Maleic acid, esters, polymers with

dicyclopentadiene, ethylene glycol, styrene, and acrylates and methacrylates)  
201417-33-6 (Dicyclopentadiene-diethylene glycol-maleic anhydride-styrene copolymer)

L133 ANSWER 49 OF 52 TOXCENTER COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1995:179104 TOXCENTER  
COPYRIGHT: Copyright 2006 ACS  
DOCUMENT NUMBER: CA12306057646C  
TITLE: Crosslinking unsaturated vinyl ester resins  
AUTHOR(S): Penczek, Piotr; Cholinska, Mariola  
CORPORATE SOURCE: ASSIGNEE: Instytut Chemii Przemyslowej  
PATENT INFORMATION: PL 159554 B1 31 Dec 1992  
SOURCE: (1992) Pol., 4 pp.  
CODEN: POXXA7.  
COUNTRY: POLAND  
DOCUMENT TYPE: Patent  
FILE SEGMENT: CAPLUS  
OTHER SOURCE: CAPLUS 1995:654941  
LANGUAGE: Polish  
ENTRY DATE: Entered STN: 16 Nov 2001  
Last Updated on STN: 3 Sep 2002

## ABSTRACT:

The crosslinking of the title resins is catalyzed by  $\text{AOCH}_2\text{CH}(\text{OH})\text{CH}_2\text{N}(\text{C}_6\text{H}_4\text{R}-\text{p})\text{CH}_2\text{CH}(\text{OH})\text{CH}_2\text{OA}$  (A = alkyl, alkenyl, or aryl; R = H, Cl, or Me),  $[\text{N}(\text{C}_6\text{H}_4\text{R}-\text{p})\text{CH}_2\text{CH}(\text{OH})\text{CH}_2]\text{k}$  (R = H, Cl, or Me; k = 3-30), or  $[\text{NZCH}_2\text{CH}(\text{OH})\text{CH}_2\text{OXOCH}_2\text{CH}(\text{OH})\text{CH}_2]\text{m}$  [I; Z = C1-4 alkyl, cyclohexyl, 2-ethylhexyl, or C6H4R-p, R = H, Cl, or Me; X = [p-C6H4CMe2C6H4-p-OCH2C(OH)CH2OC6H4-p-CMe2C6H4-p]n, [(CH2CH2O)pCH2CH(OH)CH2O]n(CH2CH2O)p, or [(CH2)rOCH2CH(OH)CH2O]n(CH2)r; n = 0.1-3, p = 2-4, r = 2, 4, or 6, m = 2.5-20], peroxides, and optionally, metal compds. These tertiary amine catalysts exhibited low toxicity and **volatility**. Thus, a composition containing dian-epichlorohydrin copolymer **methacrylate** (containing 45% styrene) 100, 40% ethylene glycol mono-Bu **ether** solution of I [X = [p-C6H4CMe2C6H4-p-OCH2C(OH)CH2OC6H4-p-CMe2C6H4-p]n, Z = C6H4Me-p, n = 0.21; m = 4] 0.5, Me Et ketone hydroperoxide 2, and Co naphthenate 0.03 g gelled in 18 min at room temperature

CLASSIFICATION CODE: 37-6

SUPPLEMENTARY TERMS: Miscellaneous Descriptors

tertiary amine nontoxic **nonvolatile** crosslinking catalyst; unsatd vinyl ester resin crosslinking catalyst; bisphenol A epoxy aminated catalyst crosslinking; toluidine modified epoxy resin catalyst crosslinking; cobalt naphthenate catalyst crosslinking epoxy methacrylate; butanone hydroperoxide catalyst crosslinking epoxy methacrylate; peroxide catalyst crosslinking vinyl ester resin; styrene crosslinking epoxy methacrylate resin

REGISTRY NUMBER: 7440-48-4Q (Cobalt, naphthenic acid salts)

19437-68-4 (2-Butanone hydroperoxide)

62395-94-2 (Derakane 415-45)

REGISTRY NUMBER: 100-42-5; 164254-94-8

L133 ANSWER 50 OF 52 TOXCENTER COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1976:70473 TOXCENTER

COPYRIGHT: Copyright 2006 ACS

DOCUMENT NUMBER: CA08410061395P

TITLE: Versatile water-solvent soluble polymer and coating composition

AUTHOR(S): Vasta, Joseph A.

CORPORATE SOURCE: ASSIGNEE: du Pont de Nemours, E. I., and Co.



PATENT INFORMATION: US 940005 4 Nov 1975  
SOURCE: (1975) Def. Publ. U. S. Pat. Off. T, 29 pp.  
CODEN: USXXBN.  
COUNTRY: UNITED STATES  
DOCUMENT TYPE: Patent  
FILE SEGMENT: CAPLUS  
OTHER SOURCE: CAPLUS 1976:61395  
LANGUAGE: English  
ENTRY DATE: Entered STN: 16 Nov 2001  
Last Updated on STN: 18 Dec 2002

## ABSTRACT:

Thermosetting coatings were prepared which can be reduced to a spray viscosity with water or other **non-polluting** solvents and which give durable, grease- and stain-resistant coatings with good adhesion to unprimed metal substrates. Thus, styrene 13.64, Me **methacrylate** 9.74, acrylic acid 0.97, vinylpyrrolidone 14.61, hydroxyethyl **acrylate** 9.74 and di-tert-butyl peroxide 0.97 part was added to a refluxing mixture of 40.5 parts ethylene **\*\*\*glycol\*\*\* monobutyl ether** (I) and 3.9 parts iso-PrOH over 4 hr, cold, and 2.60 parts morpholine and 3.33 parts I added. The resulting copolymer [34363-66-1] solution had 51.75% solids content. A mill base was prepared from the above polymer solution 8.02, TiO<sub>2</sub> 26.05, I 1.20 and iso-PrOH 4.81 parts. A stable coating composition was prepared from the above mill base 40, the above polymer solution 36.18, methylolated melamine-formaldehyde polymer 8.27, morpholine 1.74, and iso-PrOH 13.81 parts. The coating was diluted with water to spray viscosity, applied to unprimed and primed steel panels, and baked 30 min at 150° to give coatings with 2H pencil hardness and excellent appearance. The polymer solution was also used in electrophoretic coating.

CLASSIFICATION CODE: 42-7

SUPPLEMENTARY TERMS: Miscellaneous Descriptors  
water dilutable thermosetting coating; electrophoretic  
coating; vinyl compd copolymer coating

REGISTRY NUMBER: 34363-66-1; 58253-68-2; 58253-70-6

L133 ANSWER 51 OF 52 TOXCENTER COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1969:52562 TOXCENTER

COPYRIGHT: Copyright 2006 ACS

DOCUMENT NUMBER: CA07025114527C

TITLE: Vinyl ethers containing an epoxy group. III. Synthesis  
and cholineline properties of vinyl (2-hydroxy  
-3-aminopropoxy)alkyl **ethers**

AUTHOR(S): Atavin, A. S.; Ignat'eva, M. A.; Vyalykh, E. P.; Trofimov,  
B. A.; Kuznetsov, I. G.; Maksimov, S. M.; Kron, L. A.

CORPORATE SOURCE: Irkutsk. Inst. Org. Khim., Irkutsk, USSR.  
SOURCE: Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya, (1969)

No. 2, pp. 428-34.  
CODEN: IASKA6. ISSN: 0002-3353.

COUNTRY: USSR

DOCUMENT TYPE: Journal

FILE SEGMENT: CAPLUS

OTHER SOURCE: CAPLUS 1969:114527

LANGUAGE: Russian

ENTRY DATE: Entered STN: 16 Nov 2001

Last Updated on STN: 31 Dec 2002

## ABSTRACT:

The compds. described have hypotensive and spasmolytic activities, and also have the ability to inhibit muscular motor activity and to disturb the motion coordination in animals. Heating vinyl glycidyl ether with 2 moles amine 3-4 hrs. at 100° gave CH<sub>2</sub>:CHOZCH<sub>2</sub>CH(OH)CH<sub>2</sub>NR<sub>2</sub> (I) (Z, NR<sub>2</sub>, b.p., n<sub>20</sub>D, and d<sub>20</sub> given): (CH<sub>2</sub>)<sub>2</sub>, morpholino, b1 131°, 1.4804, 1.0100; CH<sub>2</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>, morpholino, b1 155°, 1.4787, 1.0887; CHMeCH<sub>2</sub>CH<sub>2</sub>, morpholino, b1

122°, 1.4721, 1.0439; (CH<sub>2</sub>)<sub>4</sub>, morpholino, b<sub>4</sub> 156-6°, 1.4726, 1.0407; (CH<sub>2</sub>)<sub>20</sub>(CH<sub>2</sub>)<sub>2</sub>, NEt<sub>2</sub>, b<sub>1</sub> 139°, 1.4578, 0.9873; (CH<sub>2</sub>)<sub>20</sub>(CH<sub>2</sub>)<sub>20</sub>(CH<sub>2</sub>)<sub>2</sub>, NEt<sub>2</sub>, b<sub>1</sub> 154-5°, 1.4587, 1.0068; (CH<sub>2</sub>)<sub>2</sub>, N(CH<sub>2</sub>CH:CH<sub>2</sub>)<sub>2</sub>, b<sub>2</sub> 122°, 1.4710, 0.9732. Keeping 1,2-epoxy-3-(2-vinyloxyethoxy)propane in 15-20% aqueous Me<sub>3</sub>N 1-2 hrs. gave after removal of \*\*\*volatile\*\*\* products in vacuo, a residue of water-soluble 2-vinyloxyethoxy-choline (II) a sirup, assaying .apprx.83%. Heating in vacuo resulted in loss of Me<sub>3</sub>N and increased content of vinyl groups, as well as formation of a polymer. II was isolated as the chloride, C<sub>10</sub>H<sub>19</sub>O<sub>3</sub>NC<sub>1</sub>, which was analyzed. Treating I with MeI in Et<sub>2</sub>O rapidly gave ppts. of polymeric quaternary salts; that from CH<sub>2</sub>: -CHOCH<sub>2</sub>CH<sub>2</sub>OCH<sub>2</sub>CH(OH)CH<sub>2</sub>NEt<sub>2</sub> was analyzed as (C<sub>12</sub>H<sub>26</sub>-O<sub>3</sub>NI)<sub>x</sub>. II had low level of animal toxicity.

CLASSIFICATION CODE: 23

SUPPLEMENTARY TERMS: Miscellaneous Descriptors

vinyl epoxy ethers; epoxy vinyl ethers; ethers vinyl epoxy; hydroxy amine vinyl ethers; amine hydroxy vinyl ethers; choline like vinyl ethers

REGISTRY NUMBER: 20392-37-4; 20392-38-5; 22703-87-3; 22703-88-4; 22703-89-5; 22703-90-8; 22721-52-4; 22721-53-5; 28632-53-3

L133 ANSWER 52 OF 52 TOXCENTER COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1965:21939 TOXCENTER

COPYRIGHT: Copyright 2006 ACS

DOCUMENT NUMBER: CA06209059273Z

TITLE: Ultraviolet-stabilizing of monomers and polymers. I. Synthesis and polymerization of phenyl 5-(methacryloyloxymethyl)salicylate

AUTHOR(S): Fertig, J.; Goldberg, A. I.; Skoultchi, M.

CORPORATE SOURCE: Natl. Starch & Chem. Corp., Plainfield.

SOURCE: Journal of Applied Polymer Science, (1965) Vol. 9, No. 3, pp. 903-10.

CODEN: JAPNAB. ISSN: 0021-8995.

DOCUMENT TYPE: Journal

FILE SEGMENT: CAPLUS

OTHER SOURCE: CAPLUS 1965:59273

LANGUAGE: English

ENTRY DATE: Entered STN: 16 Nov 2001

Last Updated on STN: 16 Aug 2005

#### ABSTRACT:

N.J. The uv stabilizing of the moiety chemical attached to polymer systems is advantageous to minimize migration, **volatility**, compatibility, and toxicity. Thus, Ph salicylate (I) was chloromethylated with HCHO and concentrated HCl by using As<sub>2</sub>O<sub>3</sub> as catalyst to give Ph 5-chloromethylsalicylate (II) in 80% yield after extraction with acetone. This compound was then treated with Na acrylate

or methacrylate in an acetone-H<sub>2</sub>O mixture to yield the desired monomer Ph 5-(methacryloyloxymethyl)salicylate (III) in 80% yield after extraction with CH<sub>2</sub>Cl<sub>2</sub>. III is a viscous, colorless liquid, soluble in many solvents. The homopolymer (IV) of III was prepared by polymerization of the monomer in C<sub>6</sub>H<sub>6</sub> with Bz<sub>2</sub>O<sub>2</sub> as initiator. The polymer was isolated as a white powder by precipitation with MeOH. The

uv spectra of I, II, III, and IV are similar. Small amts. of IV can be blended with other polymers, and IV can thus be used as a high-mol.-weight stabilizer. Copolymers of the uv-absorbing monomers (2%) with vinyl acetate, vinylidene chloride, and vinyl chloride were prepared. The uv stability of these copolymers was then compared with that of the unstabilized control series and a series containing I. The copolymerized absorbers were at least as effective as I in stabilizing the polymers.

CLASSIFICATION CODE: 45

REGISTRY NUMBER: 1823-55-8 (2,5-Cresotic acid,  $\alpha$ - hydroxy-,  
phenyl ester,  $\alpha$ - methacrylate)  
859047-96-4 (Methacrylic acid,  $\alpha$ -  
ester with Ph  $\alpha$ - hydroxy  
-2,5-cresotate)  
7446-70-0 (Aluminum chloride)  
7646-85-7 (Zinc chloride)  
9003-20-7 (Vinyl acetate polymers)  
9002-85-1 (Ethylene, 1,1-dichloro-, homopolymer)  
9002-86-2 (Ethylene, chloro-, homopolymer)

FILE 'HOME' ENTERED AT 16:28:34 ON 31 JUL 2006

=>

**THIS PAGE BLANK (USPTO)**

=> d his nofile

(FILE 'HOME' ENTERED AT 10:51:29 ON 31 JUL 2006)

FILE 'CAPLUS' ENTERED AT 10:51:48 ON 31 JUL 2006

SET LINE 250  
SET DETAIL OFF  
E US2000-581781/AP,PRN 25  
SET LINE LOGIN  
SET DETAIL LOGIN  
112 SEA ABB=ON SUGERMAN G?/AU  
42765 SEA ABB=ON LATEX?/OBI  
3 SEA ABB=ON L1 AND L2  
D SCAN TI  
D SCAN

L1  
L2  
L3

FILE 'REGISTRY' ENTERED AT 10:54:41 ON 31 JUL 2006

E 4-(N,N-BIS VINYL) 1,3-PENTANEDIOL/CN  
E 4-(N,N-BIS VINYL) 1,3-PENTANEDIOL/CN  
E 1,3-PENTANEDIOL/CN

FILE 'CAPLUS' ENTERED AT 11:11:34 ON 31 JUL 2006

SEL L3 RN

FILE 'REGISTRY' ENTERED AT 11:11:46 ON 31 JUL 2006

L4 90 SEA ABB=ON (100-42-5/BI OR 148264-14-6/BI OR 152383-40-9/BI  
OR 185323-75-5/BI OR 19727-16-3/BI OR 9003-20-7/BI OR 111774-36  
-8/BI OR 121546-85-8/BI OR 14697-46-2/BI OR 14807-96-6/BI OR  
16889-06-8/BI OR 21645-51-2/BI OR 228718-06-7/BI OR 228718-07-8  
/BI OR 228718-08-9/BI OR 228718-09-0/BI OR 228718-10-3/BI OR  
228718-11-4/BI OR 228718-12-5/BI OR 228718-13-6/BI OR 228718-14  
-7/BI OR 228718-15-8/BI OR 228718-16-9/BI OR 228718-17-0/BI OR  
228718-18-1/BI OR 228718-19-2/BI OR 228718-20-5/BI OR 228718-21  
-6/BI OR 228718-22-7/BI OR 228718-23-8/BI OR 228857-61-2/BI OR  
228857-67-8/BI OR 228857-68-9/BI OR 229959-58-4/BI OR 229959-65  
-3/BI OR 229959-69-7/BI OR 23778-52-1/BI OR 25068-38-6/BI OR  
37199-81-8/BI OR 471-34-1/BI OR 51728-68-8/BI OR 56-86-0/BI OR  
57-55-6/BI OR 59233-24-8/BI OR 60864-33-7/BI OR 61417-49-0/BI  
OR 61417-50-3/BI OR 61417-52-5/BI OR 61417-55-8/BI OR 61417-56-  
9/BI OR 61433-81-6/BI OR 61436-47-3/BI OR 61436-48-4/BI OR  
61436-49-5/BI OR 61436-50-8/BI OR 61538-58-7/BI OR 62180-92-1/B  
I OR 62180-93-2/BI OR 63713-74-6/BI OR 63742-74-5/BI OR  
63971-15-3/BI OR 64060-96-4/BI OR 64060-97-5/BI OR 65319-47-3/B  
I OR 65654-32-2/BI OR 66625-69-2/BI OR 66625-70-5/BI OR  
68492-75-1/BI OR 68492-76-2/BI OR 7005-47-2/BI OR 71244-11-6/BI  
OR 7631-86-9/BI OR 777078-65-6/BI OR 777078-66-7/BI OR  
777078-67-8/BI OR 777081-10-4/BI OR 777093-75-1/BI OR 777093-76  
-2/BI OR 778595-86-1/BI OR 778596-00-2/BI OR 778596-14-8/BI OR  
78146-71-1/BI OR 88-12-0/BI OR 9002-86-2/BI OR 9002-88-4/BI OR  
9003-53-6/BI OR 9003-55-8/BI OR 9010-98-4/BI OR 9016-45-9/BI  
OR 9063-51-8/BI)  
L5 17 SEA ABB=ON L4 AND N/ELS  
D SCAN

FILE 'STNGUIDE' ENTERED AT 11:12:21 ON 31 JUL 2006

FILE 'REGISTRY' ENTERED AT 12:06:47 ON 31 JUL 2006

L6 73 SEA ABB=ON L4 NOT L5  
D SCAN  
L7 48 SEA ABB=ON L6 NOT M/ELS

## D SCAN

FILE 'LREGISTRY' ENTERED AT 12:14:24 ON 31 JUL 2006

L8 0 SEA ABB=ON PROPENOLATO  
L9 5 SEA ABB=ON PROPENOATO  
D SCAN

FILE 'REGISTRY' ENTERED AT 12:18:13 ON 31 JUL 2006

E C15H29NO6/MF  
L10 121 SEA ABB=ON C15H29NO6/MF  
L\*\*\* DEL 121 S L10 NOT RSD/FS  
L11 35 SEA ABB=ON L10 NOT RSD/FA  
D SCAN  
L12 4 SEA ABB=ON L5 AND (C7H14N2O OR C8H11NO3 OR C11H19NO3 OR  
C13H23NO2 OR C15H21NO4)/MF  
D SCAN  
L13 1301 SEA ABB=ON C13H23NO2/MF  
L14 206 SEA ABB=ON L13 NOT RSD/FA  
L15 0 SEA ABB=ON L14 AND N,N-DIETHENYL  
L16 156 SEA ABB=ON L14 NOT CYANO  
D SCAN  
L17 1733 SEA ABB=ON C12H21NO2/MF  
L18 0 SEA ABB=ON L4 AND L17  
L19 0 SEA ABB=ON L17 AND N,N-DIETHENYL  
L20 75890 SEA ABB=ON VINYL  
L21 4 SEA ABB=ON L20 AND L17  
D SCAN  
L22 273 SEA ABB=ON L17 NOT RSD/FA  
L23 15 SEA ABB=ON L22 AND HEXANO?  
D SCAN  
SAVE TEMP L12 JON781REG1/A

FILE 'CAPLUS' ENTERED AT 12:35:29 ON 31 JUL 2006

L24 2 SEA ABB=ON L12  
D SCAN TI

FILE 'STNGUIDE' ENTERED AT 13:34:47 ON 31 JUL 2006

FILE 'CAPLUS' ENTERED AT 13:35:38 ON 31 JUL 2006  
D SCAN L3

FILE 'STNGUIDE' ENTERED AT 13:35:57 ON 31 JUL 2006

FILE 'CAPLUS' ENTERED AT 13:39:03 ON 31 JUL 2006

L25 1 SEA ABB=ON L24 AND L3  
D SCAN  
E AMINES/CT  
L26 134103 SEA ABB=ON AMINES/CT  
L27 2221 SEA ABB=ON L26 (L) (UNSAT?/OBI OR VINYL/OBI)  
L28 51329 SEA ABB=ON ESTERS/CT  
L29 39319 SEA ABB=ON ETHERS/CT  
L30 5405 SEA ABB=ON L28 (L) (HYDROXY?/OBI OR UNSAT?/OBI)  
L31 1923 SEA ABB=ON L29 (L) (HYDROXY?/OBI OR UNSAT?/OBI)  
L32 4145 SEA ABB=ON VOC/OBI  
L33 8911 SEA ABB=ON NONVOLATI?/OBI  
L34 76390 SEA ABB=ON VOLATIL?/OBI  
L35 1 SEA ABB=ON L27 AND (L30 OR L31) AND (L32 OR L33 OR L34)  
L36 114 SEA ABB=ON L27 AND (L30 OR L31)  
L37 5832 SEA ABB=ON (L28 OR L29) (L) (GLYCOL?/OBI OR POLYOL?/OBI OR  
OLIGOOL?/OBI)

L38 117 SEA ABB=ON L27 AND (L30 OR L31 OR L37)  
L39 6175 SEA ABB=ON COALESCEN?/OBI  
L40 0 SEA ABB=ON L38 AND L39  
L41 0 SEA ABB=ON L27 AND L39  
D SCAN L35  
D SCAN L3  
L42 923 SEA ABB=ON L27 (L) USES/RL  
L43 18702 SEA ABB=ON (L28 OR L29) (L) USES/RL  
L44 22 SEA ABB=ON L42 AND L43 AND L38  
D SCAN TI  
L45 0 SEA ABB=ON L2 AND L38

FILE 'REGISTRY' ENTERED AT 13:51:24 ON 31 JUL 2006

L46 4563 SEA ABB=ON C12H18O3/MF  
L47 1 SEA ABB=ON L4 AND L46  
D SCAN  
L48 101 SEA ABB=ON C22H22O5/MF AND 2/NR  
L49 1 SEA ABB=ON L4 AND L48  
D SCAN  
L50 405 SEA ABB=ON C16H26O7/MF  
L51 1 SEA ABB=ON L50 AND L4  
D SCAN  
L52 76 SEA ABB=ON L50 NOT RSD/FA  
D SCAN  
E CITRIC ACID/CN  
L53 1842 SEA ABB=ON C12H14O4/MF AND 1/NR  
L54 1657 SEA ABB=ON 46.150.18/RID AND L53  
L55 1 SEA ABB=ON PROPANETRIOL AND L54  
D SCAN  
L56 160 SEA ABB=ON C22H28O9/MF  
L57 10 SEA ABB=ON L56 AND 1/NR  
D SCAN

FILE 'LREGISTRY' ENTERED AT 14:58:29 ON 31 JUL 2006

E SORBITAN  
L58 16 SEA ABB=ON SORBITAN/BI  
D SCAN

FILE 'REGISTRY' ENTERED AT 14:59:46 ON 31 JUL 2006

FILE 'CAPLUS' ENTERED AT 14:59:55 ON 31 JUL 2006  
L59 5 SEA ABB=ON (L49 OR L47 OR L55)  
D SCAN TI

FILE 'REGISTRY' ENTERED AT 15:00:24 ON 31 JUL 2006

L60 3 SEA ABB=ON (L49 OR L47 OR L55)

FILE 'CAPLUS' ENTERED AT 15:02:26 ON 31 JUL 2006

D QUE L44  
L61 0 SEA ABB=ON L44 AND L3  
L62 275029 SEA ABB=ON 42/SC, SX  
L63 6 SEA ABB=ON L62 AND L44

FILE 'WPIX' ENTERED AT 15:05:51 ON 31 JUL 2006

L64 21 SEA ABB=ON SUGERMAN G?/AU  
D SCAN

FILE 'CAPLUS' ENTERED AT 15:07:57 ON 31 JUL 2006

L65 212789 SEA ABB=ON METHACRYL?/OBI OR METH ACRYL?/OBI  
L66 779 SEA ABB=ON L65 AND (L30 OR L31 OR L37)

L67 10 SEA ABB=ON (L32 OR L33 OR L34) AND L66  
D SCAN TI  
L68 1 SEA ABB=ON MOBILE/TI AND L67  
D SCAN  
L69 9 SEA ABB=ON L67 NOT ENVIRONMENTAL MODELING/CT

INDEX '1MOBILITY, 2MOBILITY, ABI-INFORM, ADISCTI, AEROSPACE, AGRICOLA,  
ALUMINIUM, ANABSTR, ANTE, APOLLIT, AQUALINE, AQUASCI, AQUIRE, BABS,  
BIBLIODATA, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA,  
CAOLD, CAPLUS, CASREACT, CBNB, CEABA-VTB, CERAB, ...' ENTERED AT 15:10:39  
ON 31 JUL 2006

SEA (VOC OR NONVOLATIL? OR VOLATIL?) AND (ESTER# OR ETHER#)

-----  
58 FILE 1MOBILITY  
1 FILE 2MOBILITY  
352 FILE ABI-INFORM  
1 FILE ADISCTI  
113 FILE AEROSPACE  
833 FILE AGRICOLA  
19 FILE ALUMINIUM  
1846 FILE ANABSTR  
63 FILE ANTE  
342 FILE APOLLIT  
154 FILE AQUALINE  
105 FILE AQUASCI  
4 FILE AQUIRE  
359 FILE BABS  
1 FILE BIBLIODATA  
678 FILE BIOENG  
2782 FILE BIOSIS  
214 FILE BIOTECHABS  
214 FILE BIOTECHDS  
425 FILE BIOTECHNO  
2240 FILE CABA  
153 FILE CAOLD  
5996 FILE CAPLUS  
747 FILE CASREACT  
235 FILE CBNB  
192 FILE CEABA-VTB  
7 FILE CERAB  
78 FILE CHEMINFORMRX  
118 FILE CIN  
58 FILE CIVILENG  
1082 FILE COMPENDEX  
3 FILE COMPUAB  
6 FILE CONFSCI  
1 FILE COPPERLIT  
13 FILE CORROSION  
177 FILE CROPB  
745 FILE CROPU  
66 FILE CSNB  
106 FILE DDFB  
100 FILE DDFU  
6 FILE DETHERM  
36 FILE DGENE  
281 FILE DISSABS  
7 FILE DKF  
289 FILE DPCI  
106 FILE DRUGB  
192 FILE DRUGU



9	FILE ELCOM
143	FILE EMA
17	FILE EMBAL
1679	FILE EMBASE
2074	FILE ENCOMPLIT
2357	FILE ENCOMPPAT
868	FILE ENERGY
163	FILE ENVIROENG
28997	FILE EPFULL
808	FILE ESBIODBASE
52	FILE FRANCEPAT
5376	FILE FRFULL
1373	FILE FROSTI
2670	FILE FSTA
4488	FILE GBFULL
17	FILE GENBANK
137	FILE GEOREF
63	FILE HEALSAFE
2	FILE ICONDA
1	FILE IFICLS
6926	FILE IFIPAT
231	FILE INIS
816	FILE INPADOC
136	FILE INSPEC
11	FILE INSPHYS
249	FILE INVESTEXT
32	FILE IPA
19	FILE ITRD
1236	FILE JAPIO
1123	FILE JICST-EPLUS
85	FILE KOREAPAT
83	FILE KOSMET
834	FILE LIFESCI
15	FILE MATBUS
26	FILE MECHENG
1880	FILE MEDLINE
43	FILE METADEX
226	FILE NAPRALERT
512	FILE NLDB
302	FILE NTIS
1	FILE NUTRACEUT
26	FILE OCEAN
448	FILE PAPERCHEM2
2914	FILE PASCAL
1	FILE PATDPA
906	FILE PATDPAFULL
33126	FILE PCTFULL
7	FILE PHIN
92	FILE PIRA
232	FILE POLLUAB
2278	FILE PROMT
829	FILE RAPRA
209	FILE RDISCLOSURE
2	FILE RSWB
48	FILE RUSSIAPAT
2872	FILE SCISEARCH
6	FILE SOLIDSTATE
1	FILE SYNTHLINE
172	FILE TEMA
69	FILE TEXTILETECH

4184 FILE TOXCENTER  
 47 FILE TRIBO  
 113 FILE TULSA  
 71 FILE TULSA2  
 11 FILE UFORDAT  
 158 FILE ULIDAT  
 109285 FILE USPATFULL  
 10369 FILE USPAT2  
 6 FILE VETB  
 20 FILE VETU  
 192 FILE WATER  
 6 FILE WELDASEARCH  
 8504 FILE WPIDS  
 43 FILE WPIFV  
 8504 FILE WPINDEX  
 634 FILE WSCA  
 15 FILE WTEXTILES

L70 QUE ABB=ON (VOC OR NONVOLATIL? OR VOLATIL?) AND (ESTER# OR  
 ETHER#)  
 -----  
 D RANK

FILE 'STNGUIDE' ENTERED AT 15:15:11 ON 31 JUL 2006

FILE 'WPIX' ENTERED AT 15:16:27 ON 31 JUL 2006

L71 89234 SEA ABB=ON (VOC/BI,ABEX OR NONVOLATIL?/BI,ABEX OR VOLATIL?/BI,  
 ABEX)  
 L72 10 SEA ABB=ON L64 AND L71  
 L73 167926 SEA ABB=ON AMINE#/BI,ABEX  
 L74 4120 SEA ABB=ON L73 (5A) (UNSAT?/BI,ABEX OR VINYL/BI,ABEX)  
 L75 130488 SEA ABB=ON METHACRYL?/BI,ABEX OR METH ACRYL?/BI,ABEX  
 L76 272563 SEA ABB=ON ESTER#/BI,ABEX  
 L77 175561 SEA ABB=ON ETHER#/BI,ABEX  
 D QUE L63  
 L78 81936 SEA ABB=ON (L76 OR L77) (5A) (HYDROXY?/BI,ABEX OR UNSAT?/BI,ABEX  
 OR GLYCOL?/BI,ABEX OR POLYOL?/BI,ABEX OR OLIGOOL?/BI,ABEX)  
 L79 770 SEA ABB=ON (L74 OR L75) AND L78 AND L71  
 L80 2869 SEA ABB=ON L73 (3A) (UNSAT?/BI,ABEX OR VINYL/BI,ABEX)  
 L81 69217 SEA ABB=ON (L76 OR L77) (3A) (HYDROXY?/BI,ABEX OR UNSAT?/BI,ABEX  
 OR GLYCOL?/BI,ABEX OR POLYOL?/BI,ABEX OR OLIGOOL?/BI,ABEX)  
 L82 26 SEA ABB=ON L80 AND L81 AND L71  
 L83 2 SEA ABB=ON L79 AND L72  
 D TRIAL 1-2

FILE 'STNGUIDE' ENTERED AT 15:21:22 ON 31 JUL 2006

FILE 'LWPI' ENTERED AT 15:23:52 ON 31 JUL 2006

E A04-F04B+ALL/MC  
 E A04-F08+ALL/MC  
 E A08-S05+ALL/MC  
 E A12-B01E+ALL/MC  
 E A12-B01F+ALL/MC  
 E G02-A02C+ALL/MC  
 E G02-A02D3+ALL/MC  
 E A12-W07D+ALL/MC  
 E E07-A01+ALL/MC  
 E E07-A02E+ALL/MC  
 E E07-A04+ALL/MC  
 E E10-G02G1+ALL/MC  
 E E10-H01D+ALL/MC

E G02-A05+ALL/MC  
E G05-F+ALL/MC

FILE 'STNGUIDE' ENTERED AT 15:24:17 ON 31 JUL 2006

FILE 'WPIX' ENTERED AT 15:50:05 ON 31 JUL 2006

L84 22 SEA ABB=ON E10-H/MC OR E10-G/MC  
L85 15 SEA ABB=ON G02-A/MC  
L86 181580 SEA ABB=ON G02-A+NT/MC  
L87 84525 SEA ABB=ON E10-H+NT/MC OR E10-G+NT/MC  
L88 1 SEA ABB=ON L82 AND L87 AND L86  
D TRIAL

FILE 'STNGUIDE' ENTERED AT 15:52:52 ON 31 JUL 2006

FILE 'WPIX' ENTERED AT 15:56:38 ON 31 JUL 2006

L89 430 SEA ABB=ON C09D139/IPC  
L90 2420 SEA ABB=ON C08F226/IPC  
L91 1 SEA ABB=ON L82 AND (L89 OR L90)  
L92 14 SEA ABB=ON L82 AND (L87 OR L86)  
D QUE  
L93 2360 SEA ABB=ON G02-A02D3/MC  
L94 2021 SEA ABB=ON G02-A02C4/MC  
L95 2 SEA ABB=ON L82 AND (L93 OR L94)  
L96 770 SEA ABB=ON (L74 OR L75) AND L78 AND L71  
L97 21 SEA ABB=ON L96 AND L86 AND L87  
L98 3 SEA ABB=ON L96 AND L86 AND L87 AND (L89 OR L90 OR L83 OR L94)  
  
L99 21 SEA ABB=ON (L80 OR L75) AND L81 AND L71 AND L86 AND L87  
L100 209 SEA ABB=ON L71(S) (L80 OR L75) (S) L81  
L101 3 SEA ABB=ON L100 AND L86 AND L87  
D QUE  
L102 10 SEA ABB=ON (L93 OR L94) AND L100  
D KWIC 1-3  
L103 36986 SEA ABB=ON VOC#/BI, ABEX OR NONVOLATIL?/BI, ABEX OR NON  
VOLATIL?/BI, ABEX  
D QUE L102  
L104 4 SEA ABB=ON L103(S) (L80 OR L75) (S) L81 AND (L93 OR L94)

FILE 'STNGUIDE' ENTERED AT 16:04:49 ON 31 JUL 2006

FILE 'PASCAL, JICST-EPLUS, JAPIO, TOXCENTER, SCISEARCH' ENTERED AT  
16:08:38 ON 31 JUL 2006

L105 75 SEA ABB=ON SUGERMAN G?/AU  
L106 23074 SEA ABB=ON VOC#  
L107 214004 SEA ABB=ON VOLATIL?  
L108 22184 SEA ABB=ON NONVOLATIL?  
L109 25388 SEA ABB=ON COALESCEN?  
L110 55357 SEA ABB=ON (ETHER# OR ESTER#) (3A) (HYDROXY? OR UNSAT? OR  
GLYCOL# OR POLYOL# OR OLIGOOL#)  
L111 1508 SEA ABB=ON AMINE# (3A) (UNSAT? OR VINYL)  
L112 157985 SEA ABB=ON METHACRYL? OR METH ACRYL?  
L113 0 SEA ABB=ON L105 AND (L106 OR L107 OR L108 OR L109 OR L110)  
AND (L111 OR L112)  
L114 2 SEA ABB=ON L105 AND (L111 OR L112)  
D SCAN  
L115 2186 SEA ABB=ON POLLUTION FREE  
L116 5105 SEA ABB=ON NONPOLLUT? OR NON POLLUT?  
L117 3537 SEA ABB=ON (L111 OR L112) AND (L110 OR L109)  
L118 3124 SEA ABB=ON (L111 OR L112) AND L110

L119 57 SEA ABB=ON L117 AND (L106 OR L107 OR L108 OR L115 OR L116)  
 L120 55 DUP REM L119 (2 DUPLICATES REMOVED)  
       ANSWERS '1-6' FROM FILE PASCAL  
       ANSWERS '7-22' FROM FILE JAPIO  
       ANSWERS '23-54' FROM FILE TOXCENTER  
       ANSWER '55' FROM FILE SCISEARCH  
 L121 0 SEA ABB=ON L110 AND L109 AND (L111 OR L112) AND (L106 OR L107  
       OR L108 OR L115 OR L116)  
 L122 1 SEA ABB=ON L111 AND L110 AND (L106 OR L107 OR L108 OR L115 OR  
       L116)  
       D QUE  
 L123 0 SEA ABB=ON L110 AND L111 AND L109 AND (L106 OR L107 OR L108  
       OR L115 OR L116)  
 L124 2365 SEA ABB=ON L112(S) L110  
 L125 0 SEA ABB=ON L124 AND L109  
 L126 2 SEA ABB=ON L112 AND L110 AND L109  
 L127 30 SEA ABB=ON L124 AND (L106 OR L107 OR L108 OR L115 OR L116)

FILE 'STNGUIDE' ENTERED AT 16:22:32 ON 31 JUL 2006

FILE 'REGISTRY' ENTERED AT 16:23:56 ON 31 JUL 2006

D QUE L12  
 D QUE L60  
 D IDE L12 1-4  
 D IDE L60 1-3

FILE 'CAPLUS' ENTERED AT 16:24:34 ON 31 JUL 2006

L128 6 SEA ABB=ON L12 OR L60  
       D BIB ED ABS HITSTR 1-6

FILE 'CAPLUS' ENTERED AT 16:25:16 ON 31 JUL 2006

D QUE L3

FILE 'WPIX' ENTERED AT 16:25:20 ON 31 JUL 2006

D QUE L72

FILE 'PASCAL, JICST-EPLUS, JAPIO, TOXCENTER, SCISEARCH' ENTERED AT  
 16:25:45 ON 31 JUL 2006

D QUE L114

FILE 'CAPLUS, WPIX, TOXCENTER' ENTERED AT 16:25:57 ON 31 JUL 2006

L129 12 DUP REM L3 L72 L114 (3 DUPLICATES REMOVED)  
       ANSWERS '1-3' FROM FILE CAPLUS  
       ANSWERS '4-11' FROM FILE WPIX  
       ANSWER '12' FROM FILE TOXCENTER  
       D IBIB ED ABS HITIND 1-3  
       D IALL ABEQ TECH 4-11  
       D IALL 12

FILE 'PASCAL, JICST-EPLUS, JAPIO, TOXCENTER, SCISEARCH' ENTERED AT  
 16:26:38 ON 31 JUL 2006

D QUE L122  
 D QUE L123  
 D QUE L126  
 D QUE L127

L130 33 SEA ABB=ON (L122 OR L126 OR L127) NOT L114

FILE 'WPIX' ENTERED AT 16:27:01 ON 31 JUL 2006

D QUE L98  
 D QUE L101

D QUE L104  
L131 7 SEA ABB=ON (L98 OR L101 OR L104) NOT L72

FILE 'CAPLUS' ENTERED AT 16:27:28 ON 31 JUL 2006

D QUE L41  
D QUE L35  
D QUE L63  
D QUE L69

L132 14 SEA ABB=ON (L35 OR L63 OR L69) NOT (L3 OR L128)

FILE 'CAPLUS, WPIX, PASCAL, JAPIO, TOXCENTER, SCISEARCH' ENTERED AT  
16:27:51 ON 31 JUL 2006

L133 52 DUP REM L132 L131 L130 (2 DUPLICATES REMOVED)

ANSWERS '1-14' FROM FILE CAPLUS  
ANSWERS '15-21' FROM FILE WPIX  
ANSWERS '22-25' FROM FILE PASCAL  
ANSWERS '26-40' FROM FILE JAPIO  
ANSWERS '41-52' FROM FILE TOXCENTER

D IBIB ED ABS HITIND 1-14  
D IALL ABEQ TECH 15-21  
D IALL 22-52

FILE 'HOME' ENTERED AT 16:28:34 ON 31 JUL 2006

=>

**THIS PAGE BLANK (USPTO)**